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BLUE JAY

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Cover: A hunting Osprey. Photo by Keith Barr.

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LOTTERIES

A FIRST TIMER'S EXPERIENCE IN GRASSLANDS NATIONAL PARK

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Saskatchewan. S7K 5L7

In September 1992, I took part in a field trip with the Integrated Resource Management students from Saskatchewan Institute of Applied Science and Technology (SIAST), Woodland Campus. The most memorable experience from the trip was the 24 hours we spent in Grasslands National Park, an area harbouring a great variety of wildlife, including many rare species, and with haunting landscapes and a fascinating local history.

Our accommodations were nylon tents in the Val Marie campground. First stop, the park office. A modest facility, it offered maps, auto-tour leaflets and fact sheets on the park's wildlife. As well, the local high school's (less than professionally produced) video on "Rattlesnake Safety" was surprisingly detailed and informative.

Our tour of the park with interpreter Florence Miller took us along the "Frenchman River Eco-Tour" route. Approaching from the north, we crossed a texas gate into the park. The first view of the valley was from the edge of the escarpment, where we stood amongst teepee rings and buffalo rubbing stones. Hundreds of metres below the Frenchman River was a long green snake of vegetation. Above the river and grassy plains were white clay slopes that led my eyes to the subtly coloured bands in the cliffs and hill sides. Erosion and time had wrinkled these surfaces that, from a distance, resemble furrowed bark. On the distant hilltops exposed rock of many kinds sparkled in the midday sun. Looking toward the southeast, I could see the many kilometres of coulees that dissect the uplands. Circling high above me was a lone Ferruginous Hawk that proceeded to fly into the valley.

Following the bird's lead, into the valley we drove. The only thing taller than the clumps of sagebrush (*Artemisia cana*) on the level plains were the trees and shrubs that grew along the river — a band of willows (*Salix* spp.), hawthorns (*Crataegus* spp.) and buffaloberry (*Shepherdia argentea*) — with the monotony broken only by the occasional poplar. I had to be sure not to blink or I might have missed the humble river. While crossing the short bridge, we spotted two Western Painted Turtles basking on the banks. Unfortunately, my camera lens and the turtles' patience were not long enough for a snapshot.

Stopping at the Larson ranch gave us a great opportunity to observe a herd of Pronghorn near by. Through the binoculars I could see a buck struggling to round up a harem. The does would crawl from one side of a fence to another, making it frustrating and difficult for the buck. Among the old grey timbers of the ranch buildings, a small Nuttall's Cottontail was spotted. Unlike the turtles, it quietly sat there allowing a few of us to get some close-up photos.

Down the road, the large Prairie Dog colony was hard to miss. As we drove, I first noticed what appeared to me to be little volcanoes with ash spewing out of them. Beside other mounds stood Prairie Dogs, as sentinels, barking out as soon as we stopped. Sitting on the remnants of an old corral was a Cooper's Hawk, also interested in the goings on of the diminutive community. When I walked among the colony, I was interested to observe the Prairie Dogs' behaviour. The animals vacated a distinct circular area directly around me. Beyond that, they would lie close to the ground at their burrow entrances. Still further out, were Prairie Dogs standing, barking and jumping about, warning their comrades of my presence. We soon left, leaving the creatures to continue their business as usual.

In the late afternoon, at the end of our guided tour, our Wildlife Instructor Hamilton Greenwood led us on a hike to see a Prairie Rattlesnake hibernaculum. It was a 5 km hike across the plains, past fields of cacti (*Opuntia* spp. and *Mamillaria* spp.) sprinkled with greasewood (*Sarcobactus vermiculatus*), sagebrush and Creeping Juniper (*Juniperus horizontalis*). After an hour, the six of us at the head of the group saw our first rattlesnake. Now, I had seen rattlesnakes on television and in zoos, but I had never heard one rattle up close. Believe me, it was unmistakable. Yet, it was much louder and much more persistent that I had expected. At this point, we made sure to carry sticks and search the low lying juniper for snakes that might also be in our path. Minutes later, we had another encounter, this time with an Eastern Yellow-bellied Racer. Two racers were seen that day, one young animal and one adult, the latter just less that a metre long. These two racers represented approximately 2% of the Saskatchewan population.

Once at the hibernaculum itself, we saw perhaps half a dozen rattlesnakes. The hibernaculum was nothing unique, just an old fox or coyote den. Again we saw young snakes and adults. One of the adult rattlers was nearly 2 m long. Other species such as Bull Snakes and Garter Snakes use these hibernacula to wait out the winter. Apparently there are several such sites in this area of the park.

By sundown we had returned from the hike ravenously hungry for our meal at the Val Marie Hotel. The hotel itself is worth putting on a park tour itinerary. Unusual statues, photographs of "seven foot long Bull Snakes" and rodeo stars, as well as a beer with proprietor/cowboy, Cliff Olsen, are all musts.

After dinner, we went for a drive through the park during the last hours of light. We wanted to get a look at one of the 20 or more Swift Foxes released just days earlier. In the space of about 10 km, we came across just fewer than 50 Pronghorn, Mule Deer and White-tailed Deer. Most exciting, though, were the four Swift Foxes spotted. Small but fast, they maintained a distance that required us to use binoculars most of the time. One animal was seen prowling around the Prairie Dog colony, sniffing at burrow entrances. This was a definite highlight of the trip, since Swift Foxes had not lived in the area for years. These were the first re-introduced by the Swift Fox Recovery program. Early the next morning, we started out on another 5 km hike, this time uphill, to the top of "70-mile butte." It was hard work climbing up over cobbles and gravel, past hogbacks and sandstone outcrops. Covering the sandstone were several different shades of lichen, which, when combined with the rust from the ironstone, created beautiful natural works of art. Lichens also covered the Bison horn that we found and turned over to park staff. Almost at the top, we got an excellent view of a Golden Eagle's nest. Made up of a column of sticks about 5 m high and 2 m wide, it was obviously a venerable structure having been built over so many times. One of the students managed to climb into the nest and retrieve a number of well-weathered rodent skulls and various other bones. Once we arrived at the top of the butte, almost 170 m above the valley floor, the sun started to break through the clouds on the eastern horizon. The valley was filled with a haze of pale orange and yellow light. I could see south into Montana, northeast to Pinto Butte and, all around, a natural prairie wonderland.

* * *

All these cattle are of one color, namely brown, and it was a great marvel to see a white bull in such a multitude. Their form is so frightful that one can only infer that they are a mixture of different animals. The bulls and cows alike are humped, the curvature extending the whole length of the back and even over the shoulders. And although the entire body is covered with wool, on the hump, from the middle of the body to the head, the breast, and the forelegs, to just above the knee, the wool is much thicker, and so fine and soft that it could be spun and woven like that of Castilian sheep. It is a very savage animal, and is comparably larger than our cattle, although it looks small because of its short legs. Its hide is the thickness of that of our cattle, and the native indians are so expert in dressing the hides that they convert them into clothing.
Don Juan de Onate. 1601. True account of the Expedition of Onate Toward the East.

TWENTY-SEVEN YEARS OF BUTTERFLY OBSERVATIONS AT FISH BUTTE, ALBERTA

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In 1966, my parents moved to a newly cleared farmsite on the south slope of Fish Butte, near Bragg Creek, Alberta. I enthusiastically launched myself into collecting and observing the wonderful diversity of skippers and butterflies on my doorstep. Between 1966 and 1992, I recorded 67 species of skippers and butterflies in an area of about 2 square km near my parents' farm. This is almost half of the butterfly fauna known for Alberta. I have summarized these records as a seasonal calendar (Table 1). I also point out some of the long-term faunal changes that have occurred during this time period, since these may relate to current issues in conservation and climate change.

Location and Habitats Fish Butte is located 26 km west of the southwestern corner of Calgary, at the southwestern corner of the Sarcee Indian Reserve (50° 55' N, 114° 32' W). It is a narrow ridge that thrusts perpendicularly northward into an old glacial outflow valley that now contains Fish Creek. The highest point of Fish Butte is at 1420 m, and its north face drops abruptly to 1280 m in the valley bottom. The surface area of the highest part of the ridge is about 3 ha, and its south face slopes gently down to farmland.

The Fish Butte area contains an interesting juxtaposition of habitat types. The ridge itself is largely covered by a relatively open mixed forest of Aspen, Balsam Poplar, White Spruce and Lodgepole Pine. Its south slope is broken up by cutlines, roads and hayfields. There is a higher proportion of White Spruce and Balsam Poplar on its moister northern and eastern slopes. The northwestern slope of Fish Butte has a large grassy patch where the ridge is exposed to the full brunt of chinook winds. At the foot of the butte, the Fish Creek meanders through a willow and sedge swamp that is maintained by a population of beaver. There are patches of Swamp Birch (*Betula glandifera*) at the northwest foot of the butte, as well as in hummocky terrain located 2 km to the north-northeast. A small raised fen is located across the valley, 350 m northwest of the base of the butte. Although interspersed by several forms of wetlands, the south-facing slopes and mounds on the north side of the valley are covered primarily by prairie herbs and grasses. Cattle have grazed in this area for several decades.

Most skipper and butterfly species were commonly recorded along roads and cutlines or at the edge of clearings in mixed-wood areas. Two species, the Rustic Blue and Uhler's Arctic, were restricted to native grassland patches on the north side of the Fish Creek valley. The Giant Sulphur, Bog Fritillary and Jutta Arctic were restricted to wetlands with sedges, small willows and birches. The Frigga's Fritillary was restricted to the raised fen.

A similar assemblage of butterflies and habitats has been described from the Grave Flats campground 75 km to the south.[2] A total of 61 species were found at this site, of which 52 are the same as at Fish Butte.

Identifications My records for 1966-68 were compiled from data labels on a small number of specimens. Starting in the spring of 1969, I kept a daily record of all the species I encountered and I included collection data with every butterfly I collected. I continued to keep records throughout subsequent years and, by the end of 1974, I had logged more than 550 days of observations. These were based on an hour or two of virtually every sunny day during weekends and the summer holidays, a half hour or more after I returned on the bus during school days, and regular commentary by my mother on the butterflies that had visited her garden each day. Between 1975-92, I added observations for 64 more days.

Common names generally follow Miller's recommendations.[1] Scientific names are consistent with a planned book on the butterflies of Alberta, to be authored by G.J. Hilchie, N. Kondla, E.M. Pike and myself. Voucher specimens for most of the 67 species listed in Table 1 are deposited at the Canadian National Collection; the remainder are in my personal collection and consist mainly of papered material.

Four additional species may have been sighted at Fish Butte, but their identification is uncertain and no vouchers were collected. These include the Roadside Skipper (*Amblyscirtes vialis*; 26 June 1987), Lorquin' Admiral (*Limenitis lorquini*; 25 June 1987), Hydaspe Fritillary (*Speyeria hydaspe*; 24 July 1982) and the Variegated Fritillary (*Euptoieta claudia*; 21 August 1974).

Since the Fish Butte site contains elements of boreal, montane and prairie vegetational assemblages, it is not surprising that this is an area where butterfly species or races meet and hybridize to varying extents. I have studied hybrid interactions between the Anise and Old World Swallowtails at this site.[3,4] Similar situations are probably also occurring here among the Sulphurs and the Electa and Atlantis Fritillaries.

Seasonal Patterns The highest seasonal diversity of butterflies occurs in June. All but 11 of 67 species have been found during this month.

Five species have two generations per year, including the Western White, Cabbage White, Clouded Sulphur, Purplish Copper and Painted Lady. Two of these, the Cabbage White and Clouded Sulphur, are the only species that feed primarily on agricultural crops during the larval stages.

Overwintered Anglewings, Tortoise Shells and Mourning Cloaks can be found flying until June, and the first fresh adults are out in early August. The Green Anglewing and Zephyr Anglewing are easily observed in the garden in the fall, sipping honeydew dropped by aphids feeding on Twining Honeysuckle. In the spring these two Anglewings are

Table 1. Seasonal Occurrence of Butterflies at Fish Butte
X = common, + = occasional or very local, . = not observed, ? = precise date uncertain. Months are divided into 1-10th, 11-20th, and 21st-end.

	April	May	June	July	Aug	Sept	Oct
Northern Cloudy Wing (*Thorybes pylades*)	...	..+	XXX	++.	...	...	...
Dreamy Dusky Wing (*Erynnis icelus*)	...	..+	...	...	...	...	...
Persius Dusky Wing (*Erynnis persius*)	...	..+	XXX	++.	...	...	...
Arctic Skipper (*Carterocephalus palaemon*)	...	..+	+XX	...	...	...	...
Garita Skipperling (*Oarisma garita*)	...	...	.?.	...	...	...	...
Draco Skipper (*Polites draco*)	...	...	+++	.+.	...	...	...
Long Dash (*Polites mystic*)	...	...	...	.+.	...	...	...
Phoebus' Parnassian (*Parnassius phoebus*)	...	...	...	...	??.	...	...
Canadian Tiger Swallowtail (*Papilio canadensis*)	...	..+	XXX	X++	+..	...	...
Anise X Old World Swallowtail (*Papilio zelicaon X Papilio machaon*)	...	..+	XXX	X++	++.	...	...
Western White (*Pontia occidentalis*)	...	+++	+..	..+	..+	+++	...
Mustard White (*Pieris napi*)	...	..+	.++	+..	...	...	...
Cabbage Butterfly (*Pieris rapae*)	...	...	..+	.+X	XXX	X++	...
Large Marble (*Euchloe ausonides*)	...	...	+++	...	...	...	...
Northern Marble (*Euchloe creusa*)	...	..+	.++	?..	...	...	...
Clouded Sulphur (*Colias philodice*)	...	..+	XX+	+.+	XXX	XX+	+++
Christina Sulphur (*Colias christina*)	...	...	.++	+.+	...	...	...
Giant Sulphur (*Colias gigantea*)	...	...	..+	.+.	...	...	...
Pink-edged Sulphur (*Colias interior*)	...	...	..+	XXX	X++	.+.	...
Bronze Copper (*Hyllolycaena hyllus*)	...	...	...	...	+..	...	...
Purplish Copper (*Epidemia helloides*)	...	...	..+	.++	.+X	X+.	...
Reakirt's Copper (*Epidemia mariposa*)	...	...	..+	XXX	X+.	++.	...
Brown Elfin (*Incisalia augustinus*)	..+	+XX	X+.	+..	...	...	...
Hoary Elfin (*Incisalia polia*)	...	+XX	X+.	...	...	...	...
Western Pine Elfin (*Incisalia eryphon*)	...	++X	X+.	+..	...	...	...
Western Tailed Blue (*Everes amyntula*)	...	..+	XXX	X+.	...	...	...
Spring Azure (*Celastrina argiolus*)	...	+.+	+.+	...	...	...	...
Silvery Blue (*Glaucopsyche lygdamus*)	...	++X	XXX	+++	...	...	...
Northern Blue (*Lycaeides idas*)	...	...	..+	.+X	X++	...	...
Greenish Blue (*Plebejus saepiolus*)	...	...	.+X	XXX	++.	...	...
Rustic Blue (*Agriades rusticus*)	...	...	+++	+..	...	...	...
Edwards' Fritillary (*Speyeria edwardsi*)	...	...	..+	+++	...	...	...
Zerene Fritillary (*Speyeria zerene*)	...	...	.++	+++	.+.	...	...
Callippe Fritillary (*Speyeria callippe*)	...	...	..+	+++	...	...	...

Table 1. (continued)

	April	May	June	July	Aug	Sept	Oct
Atlantis Fritillary (*Speyeria atlantis*)	...	...	..+	.XX	+++	+..	...
Electa Fritillary (*Speyeria electa*)	...	...	..X	XXX	X++	...	...
Mormon Fritillary (*Speyeria mormonia*)	...	...	..+	+XX	++.	.+.	...
Bog Fritillary (*Boloria eunomia*)	...	...	.+X	++.	...	...	...
Silver-bordered Fritillary (*Boloria selene*)	...	...	...	.++	+..	...	...
Meadow Fritillary (*Boloria bellona*)	...	..+	+X+	...	...	...	...
Frigga's Fritillary (*Boloria frigga*)	...	...	.+.	+..	...	...	...
Freija Fritillary (*Boloria freija*)	..+	+XX	XX+	...	...	...	...
Titania Fritillary (*Boloria titania*)	...	...	..+	+XX	XXX	+++	...
Northern Checkerspot (*Chlosyne palla*)	...	...	...	+++	+..	...	...
Field Crescent (*Phyciodes pratensis*)	...	...	.++	+++	...	...	...
Tawny Crescent (*Phyciodes batesii*)	...	...	..+	.++	...	...	...
Morpheus Crescent (*Phyciodes morpheus*)	...	...	++X	XX+	...	...	...
Satyr Anglewing (*Polygonia satyrus*)	.+.	+.+	+..	...	+.+	++.	+..
Green Anglewing (*Polygonia faunus*)	...	+++	...	...	+XX	XX+	+.+
Zephyr Anglewing (*Polygonia zephyrus*)	...	...	+.+	...	.+X	X++	...
Gray Anglewing (*Polygonia progne*)	.++	XXX	XX+	+..	..+	X+.	.+.
Mourning Cloak (*Nymphalis antiopa*)	.+X	XXX	X+.	...	+XX	XXX	X+.
Compton Tortoise Shell (*N. vaualbum*)	...	...	...	...	...	+++	+..
California Tortoise Shell (*N. californica*)	...	...	.++	...	...	.++	...
Milbert's Tortoise Shell (*Aglais milberti*)	.XX	XXX	X.+	+++	+XX	XXX	X++
Painted Lady (*Vanessa cardui*)	...	.XX	XXX	XXX	XXX	XXX	...
West Coast Lady (*Vanessa anabella*)	...	...	...	...	...	...	+..
Red Admiral (*Vanessa atalanta*)	...	..+	+++	...	.++	+..	...
White Admiral (*Limenitis arthemis*)	...	...	..+	XXX	X++	...	...
Inornate Ringlet (*Ceononympha inornata*)	...	...	..+	XXX	++.	...	...
Dark Wood Nymph (*Cercyonis oetus*)	...	...	...	..+	++.	...	...
Common Wood Nymph (*Cercyonis pegala*)	...	...	...	...	+++	+..	...
Red-disked Alpine (*Erebia discoidalis*)	...	.XX	++.	...	...	...	...
Common Alpine (*Erebia epipsodia*)	...	...	+XX	XX+	...	...	...
Macoun's Arctic (*Oeneis macounii*)	...	...	+XX	X++	...	...	...
Uhler's Arctic (*Oeneis uhleri*)	...	.+.	...	...	...	...	...
Jutta Arctic (*Oeneis jutta*)	...	...	.+.	...	...	...	...

much less commonly observed. The Red Admiral probably also overwinters as an adult.

Yearly Changes in Abundance At least one species, the Macoun's Arctic, has a biennial life cycle. Macoun's Arctics were numerous in 1970 but, since then, there have been much larger numbers of adults flying during odd years than even years. It is a mystery why the even-year cohort remains small, even though a few adults continue to emerge during those years.

Some species are occasional migrants. A few California Tortoise Shells were observed in 1973, 1974 and 1987, and only a single West Coast Lady was ever found, in 1969. The Painted Lady is certainly a migrant; large numbers were collected throughout the summer of 1973 and I have other records from 1966, 1983 and 1992. It is unclear whether populations of the Red Admiral are replenished by migrations.

Other species may undergo occasional dispersal on a smaller scale. One male and one female Phoebus' Parnassian were caught on separate days in August 1968 as they flew eastward across the farmyard. Both were heading toward the prairies, having flown about 15 km east of their normal habitat in the mountains. I never saw the species again at Fish Butte in subsequent years.

A number of skippers and butterflies were observed only sporadically, but their apparent rarity is probably a reflection of the fact that they are near the edge of their normal habitat range. The most obvious examples include the Garita Skipperling, Long Dash, Bronze Copper, Frigga's Fritillary, and Jutta's Arctic. In 1974 I recorded four Jutta's Arctics at the northeast base of Fish Butte, along a cutline lined with sedges, White Spruce and River Birch (*Betula occidentalis*), but I was unable to find any individuals there in subsequent years.

Some species are well within their normal habitat range, but seem to have large populations for only a couple of years, after which they are apparently absent. The Northern Checkerspot presents the most obvious case. I found one individual in 1969 and two in 1971. In 1972 the species was common throughout July. In subsequent years I never found a single one; the population seemed to have boomed and bust in just three years. Edward's Fritillary may be a similar case. I found a number of individuals in 1967 and then again in 1972, 1973 and 1974. Since then, I have observed only a single individual, in 1987.

A more perplexing situation is presented by several species that were common over several years but have now declined greatly in numbers. The Mustard White, Purplish Copper, Northern Blue, Field Crescent, and Zerene Fritillary were all frequently encountered in the early 1970s, but have not been recorded since 1974, for the Mustard White, or 1976, for the remaining four species. The apparent decline of Purplish Coppers may be due to increased haying around the farmyard, which would have reduced the amount of dock (*Rumex* sp.) available for larval foodplant. The other species are not so easily accounted for, since they occurred in undisturbed habitats. Their decline coincides with an increased drying out of habitats on all slopes of Fish Butte and the disappearance of many patches of Ground Pine (*Lycopodium obscurum*), a plant of moist boreal woods.

Possible causes include decreased winter snow cover and recent construction of new roads and cutlines.

It seems likely that the relatively high diversity of the Fish Butte site is due to its location at the boundary between montane, prairie and boreal habitat zones. Given the possibility that widespread global warming may now be occurring, it will be especially interesting to document changes in the community of skippers and butterflies at Fish Butte over the next few decades.

Acknowledgements I thank C.D. Bird for help with identifications when I was starting out, and my parents, Gudrun and Werner Sperling, for encouragement.

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2. PINEL, H.W. 1983. Skippers and butterflies of the Indian Grave campground area, Alberta. *Blue Jay* 41: 71-77.
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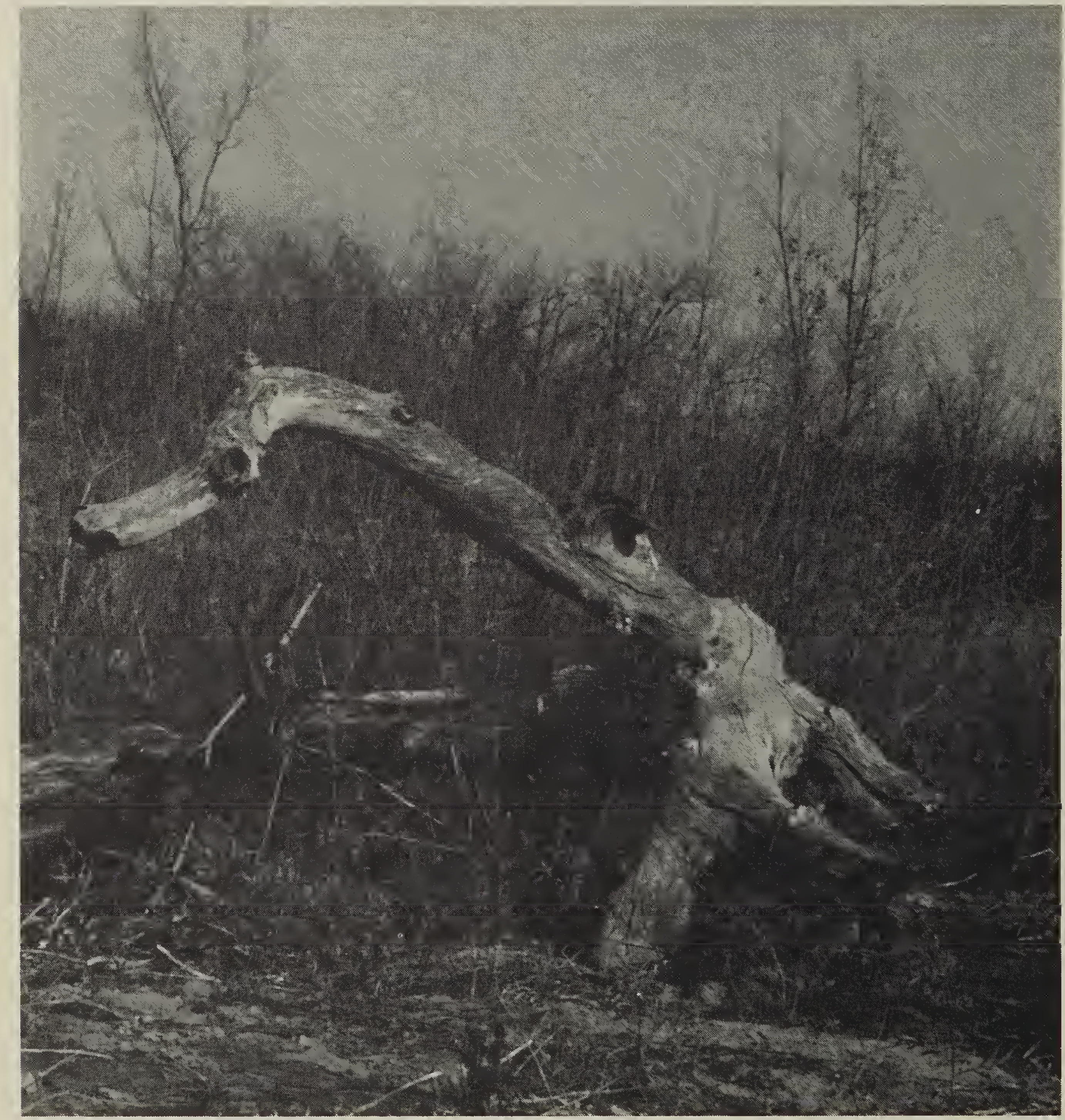
The birds of the air are my brothers,
All flowers are my sisters,
The trees are my friends.
All living creatures, mountains and streams,
I take unto my care.
For this green earth is our mother,
Hidden in the sky is the Spirit above.
I share one life with all who are here;
To everyone I give my love,
To everyone I give my love.

Joseph Cornell, 1987. Listening to Nature, Dawn Publications.

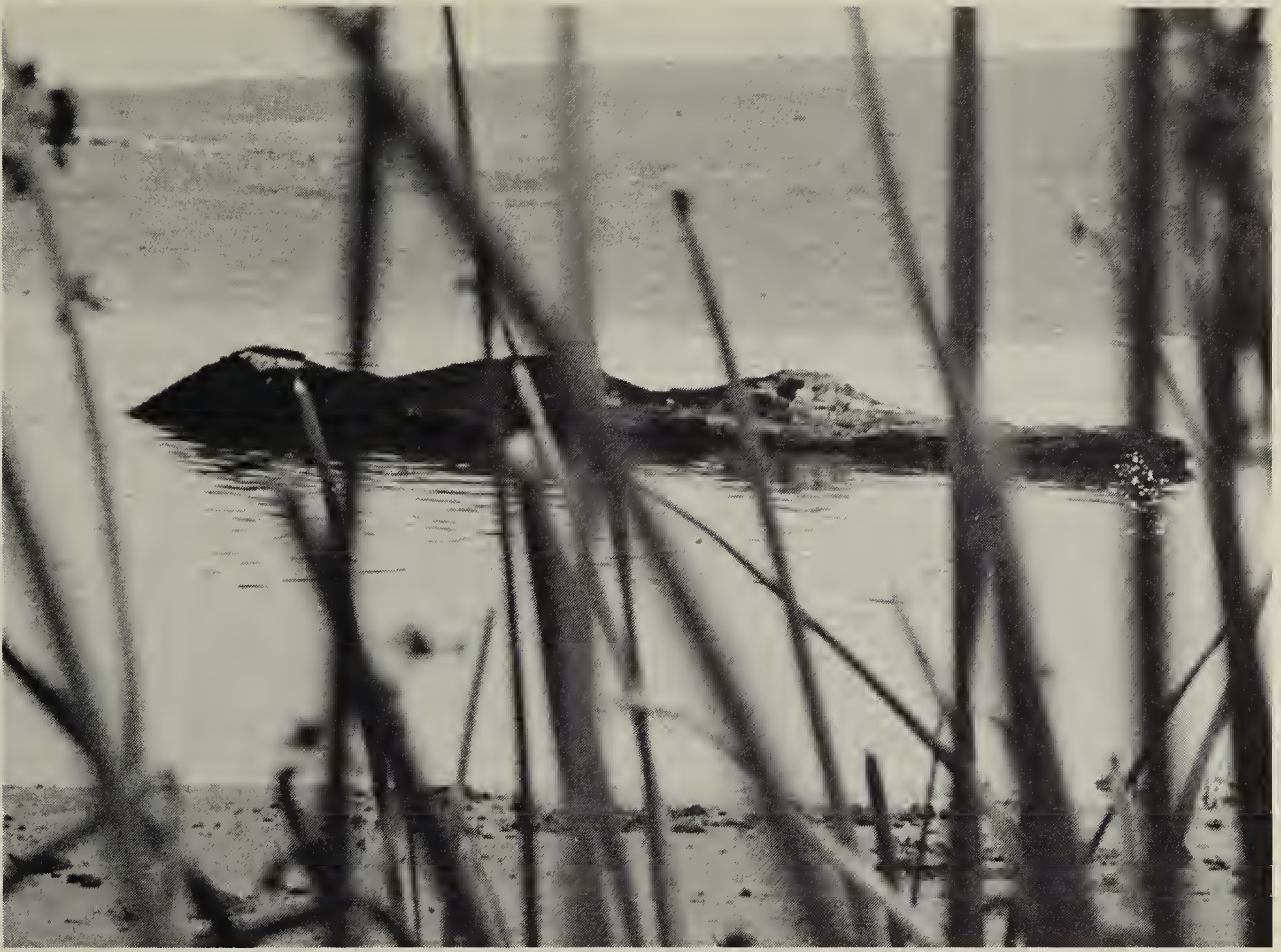
“WOODEN” YOU LIKE TO SEE THESE?

NORMA ALLEN, 921 - 9th Ave. North, Saskatoon, Saskatchewan. S7N 2Z3

The pictures on the following pages are from a collection that I took along the South Saskatchewan River, mostly within city limits, in 1992. The creatures seen here are not only seldom photographed but are seldom seen. I believe there is good reason for this. All of these animals have exceptional protective colouring, making it possible for us to walk very close to them and miss seeing them entirely. I hope that by publishing the photos, I may be able to alert you to all the wonders that inhabit our lovely river and its shores.



I was very happy to find a new species of horse - Pegasus saskatchewanus. He was about to take flight.



This is the well known South Saskatchewan River Crocodile. I found this to be the most common of all the species seen.

I also found a good many spiders of truly shocking size. This one is the Crab Spider. I didn't wait around for him to reach shore.

As you can see, there are also scorpions. I couldn't decide whether this pair was at war or whether this was some sort of elaborate mating ritual.

Here is a South Saskatchewan River bovine - grazing.

There were not many birds but here is an Aquatic Peacock.

This was a big thrill for me - my first sighting of the Conehead Rhino. Because it was fall, which is their mating season, the forehead cone is in full display.

Proof to settle the age-old question: Do Cougars occur in Saskatchewan?

On a warm, sunny morning, a South Saskatchewan River Tortoise comes up on a sand bar to sun itself.

UNUSUAL RUBY-THROATED HUMMINGBIRD ENCOUNTERS AND A LATE FALL RECORD

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Bird watching has been an interest of our family for several years now, especially since moving to our present home in southeastern Manitoba. We live in a 3-acre wooded property near the town of Steinbach. The surrounding woods consist primarily of aspen poplar and bur oak. Saskatoon, chokecherry, pin cherry, wild plum, and hazelnut are also plentiful. We maintain two seed-feeding stations year round, offering sunflower seeds, as well as suet or lard during very cold weather. One feeding station is located in the front yard amongst a cluster of poplar and birch; a nearby birdbath offers clean water. The second feeder is located on the east side of the house, at the edge of the bush, and allows the more timid birds to feed when the jays or squirrels are monopolizing the main station.

Our third station, a hummingbird feeder, is perhaps our favourite. It hangs from a branch of a poplar tree directly in front of our door. Since our home is built on a concrete slab, the doors open at ground level, thus offering a pleasant sense of continuity between indoors and out. Our feeder is filled with a concentrated sugar-water solution coloured red with food dye. Although I realize that the red colouring is no longer required once the birds have located the feeder, I keep the solution red all summer because I enjoy the splash of colour, especially when the early evening sun glances off it.

We generally put the feeder up in early to mid-May, depending on the weather. Our first "hummer" sighting is often on the Victoria Day long weekend, perhaps because we are out puttering in the yard all weekend long. At any rate, this first meeting of the year is cause for celebration, as well as an excuse to let gardening chores wait while we admire the new arrivals.

The second week of June 1992 brought our first unusual hummingbird experience. After painting our front doors, I left one ajar for several hours to dry, while I worked in the garden. After checking that the paint had dried, I entered the house, and closed the door. As I walked toward the kitchen, I heard a noise and a rather agitated male hummingbird buzzed past me into the kitchen. The bold creature had somehow ventured through the inviting gap in the door.

After recovering from my shock, awe, and relief (shock at the unexpected house guest, awe at the opportunity to observe the beautiful bird up close - perched on my dining room chandelier no less, and relief that none of our three cats had been indoors), I tried to decide on a course of action. The simplest solution appeared to be opening wide the double front doors to coax him toward freedom. Unfortunately, he continued to fly back and forth across the length of our great room without stopping to investigate the doorway in the middle. Attempts to confine his flight to the middle of the room by holding up sheets (I had enlisted my daughter Kate's assistance by this time) proved futile. Finally, in desperation, and having concluded that the bird must be nearing exhaustion, I decided to try a long shot. I took the feeder down from its branch, stepped inside the open doorway, and held the feeder in my outstretched hand. I hoped that the sight of the red feeder would induce him to come close enough to the doorway to realize his escape route. Although I had heard hummingbirds referred to as pugnacious, I had no idea how daring they could be. He flew over to investigate, seemed to scrutinize me carefully as he hovered slowly toward the feeder, then, after apparently reaching some conclusion about me, hovered closer until he gently poked my hand. Satisfied that I was no threat, or perhaps too hungry to care, he began to drink his fill, pausing periodically to observe me further. Finally, apparently noticing the outdoors beckoning to him, he made straight for a favourite perch on the nearest poplar tree, to rest. My daughter and I sat outside nearby to marvel at this wonderful episode with our favourite summer visitor. The experience would help prepare me for another unique occurrence later in the year.

Our summer progressed peacefully, if cooler than we would have desired. As in years past, we enjoyed the sight of the resident hummingbird pair that attended our feeder and flower garden. We loved watching their aerial acrobatics, especially when the two seemed involved in a game of tag, or a dispute over domestic duties. We have grown quite accustomed to the sounds of these tiny birds as they travel about our yard.

In our corner of Manitoba it is not uncommon for our gardening season to be cut short by an early frost. Certainly we feel fortunate when we escape a frost until mid-September. In an average year, the hummingbirds usually move on by the first week in September. Because of the mild weather and absence of frost I left the hummingbird feeder up well into the month. Busier now with indoor pursuits, I had time to observe the feeder only occasionally. It seemed that each time I concluded that it was time to take it down, I would see a hummingbird enjoying a drink. I assumed that these were not “our” birds, but travellers on their way south. Observations of a bird at the feeder on 27 September and throughout the following week led to a decision to leave the feeder up indefinitely. This was uncharted territory for us, and we decided not to abruptly remove the bird(s) food source.

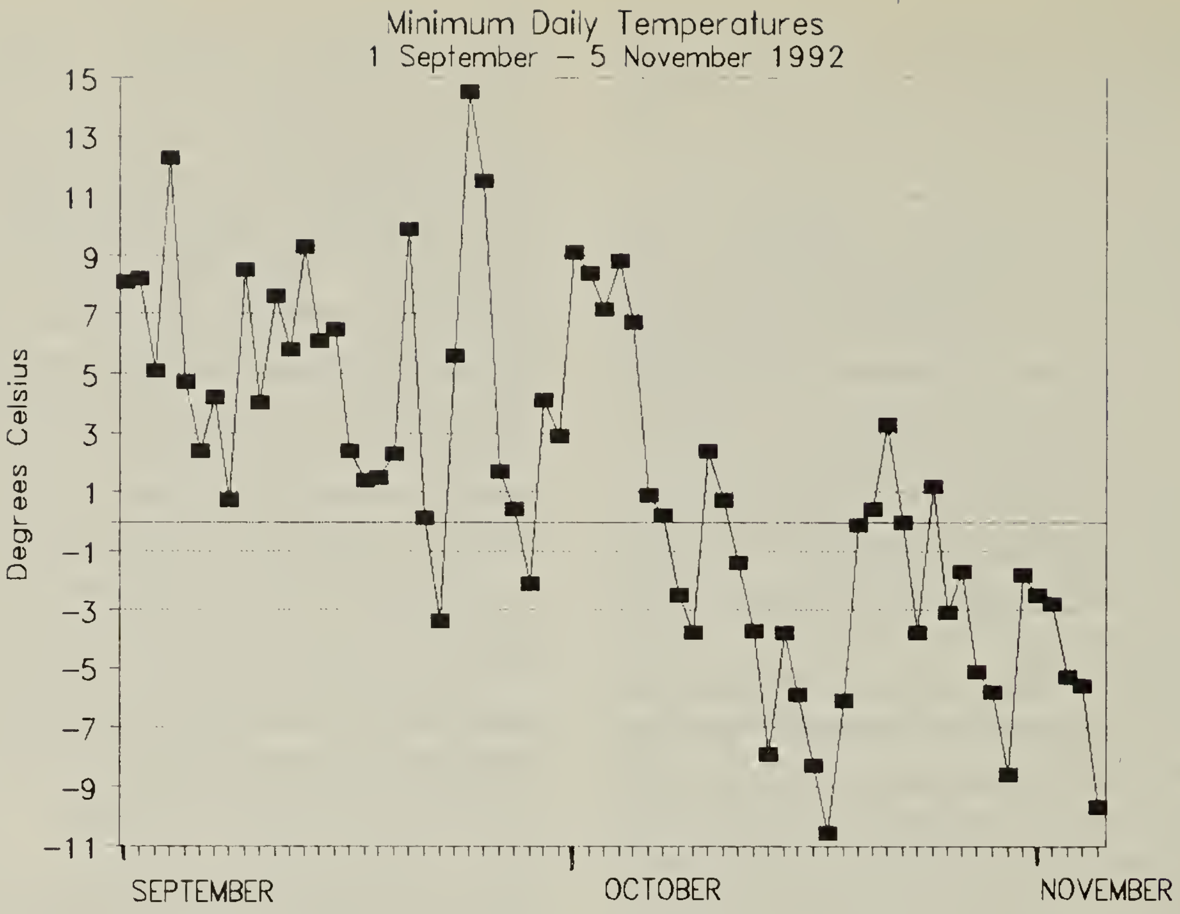
No further sightings are recorded on the calendar, probably because I was preoccupied with other matters. On 8 October, my calendar shows that the hummingbird was spotted at the feeder at 7:30 a. m.. After observing several aborted feeding attempts, I went to investigate, only to discover that the solution was frozen. I hurried inside to thaw out and warm up the solution, realizing that the bird must be badly in need of some energy. At that point we were still thinking that we were dealing with some straggling migrants. The thought that one of "our" birds had somehow failed to head south with the rest seemed too outlandish.

When our hardy little friend was still with us on Thanksgiving Day, our astonishment grew. I developed a routine of bringing the feeder in at night so as to avoid the necessity of thawing it out each morning. We increased the concentration of the solution, and substituted corn syrup for sugar. We began to check the feeder with a sense of dread each morning. If we didn't see our little friend, we wouldn't know it if had "come to its senses" and fled south, or succumbed overnight to the cold. Although I did not record daily or nighttime temperatures at the time, I have since obtained temperature data from Environment Canada, and I prepared a graph to illustrate just how cool it got on some occasions during this time period. My calendar notes indicate that we had our first snowfall on 13 October. We continued to observe the bird throughout October and into the first week of November. It certainly was bizarre to see our fluffed up "hummer" huddled on its perch on the poplar tree in the snow-covered yard, waiting for us to set out the feeder.

By this time of course we were desperate and felt somewhat responsible for the bird's predicament since we had continued to feed him/her. Back in late September it had seemed reasonable to leave the feeder up; now we regretted that decision. The first three days of November were quite cool; the forecast for the night of 4 November however, was even more ominous: -15° Celsius. Our bird could never survive that! Drastic action was called for, but what? In June I had learned that a hummingbird could be enticed indoors by curiosity; would hunger work as well? Since it seemed to be my only chance, I decided to throw energy conservation to the wind, and give it a try. I took the feeder down, and tied it to a ceiling-mounted light fixture just inside the front doorway, then rounded up everything red that I could find: a towel, my husband's housecoat, my son's jacket. I fashioned a path of red on the ground from beneath the feeder's usual location across the 5 feet to the open double doors. I hoped this would lead my little friend to the feeder's new, warmer location. Over the next two hours, I alternated between my day's work at the computer, and the labour of love in our rapidly cooling great room. By spying around corners and observing from outside, I was able to determine that by the end of the first chilly hour the bird had found the feeder. Unfortunately, it would fly in for a drink, but was not interested in staying in the warmer (only somewhat by this time) house.

Not yet ready to give up, I grabbed pruning shears and gathered some branches which I set into a weighted bucket as a makeshift tree beside the feeder. Then I hid behind one of the double doors, determined to capture the bird on its next feeding sortie. Fortunately (the house was downright cold by this time) I didn't have long to wait. The bird flew to the feeder, had a long drink, then perched on my welcoming branches (why hadn't I thought of that three freezing hours ago?). I quickly closed the doors and breathed a short-lived sigh of relief, for at that moment one of our cats (supposedly locked in another part of the house) pounced on the poor startled bird. I immediately grabbed the cat, and quickly convinced him to give up the bird. Miraculously the bird escaped unharmed, though considerably rattled. Concluding that the hummingbird needed some quiet recovery time, I retired to another room, after first tossing all three cats outside.

Now that I had managed to lure the hummingbird into the house, the question became WHAT NOW?! I knew I couldn't allow the bird its freedom in the house because of the threat our cats posed. But what to keep it in? How would I catch it? I



Minimum daily temperatures at Steinbach, Manitoba, 1 September - 5 November 1992. Data provided by Environment Canada.

decided that it was probably best to capture it before it had completely recovered from the ordeal with the cat. In the end, I was able to gently grab it and place it in a small plastic open mesh container that I keep on hand for birds recovering from occasional collisions with our picture windows. Later I transferred it to a tall open mesh plastic laundry hamper with a lid, after placing newspaper on the bottom, positioning a branch inside for perching, and tying the feeder to the lid. The transfer to the makeshift cage went smoothly, and the bird was left to rest in its new home, while I contemplated its future.

A household with cats is no place for a bird, even if it is caged. The other two possibilities which occurred to me were the Winnipeg Zoo, and the Manitoba Wildlife Rehabilitation Organization (MWRO). Although I was vaguely familiar with the MWRO's work, I didn't know if they would be prepared to come to the rescue of "my hummer." It was worth the try, so I proceeded to leave what, in retrospect, must have been a very confusing message on their answering machine. Later that afternoon I received a call from an MWRO volunteer who arranged transportation for the bird to Winnipeg, where it would be cared for by MWRO rehabilitation volunteer, Rhonda O'Grady. As I write this, the bird (subsequently determined to be a young female) is being cared for by a second MWRO volunteer. With the help of the MWRO and a bit more luck, the bird will continue to thrive in captivity until time for her release in spring.

Acknowledgement I am grateful for Robert W. Nero for encouraging me to record my experiences, and for his editing input.

Temperature data was supplied by the Winnipeg Climate Centre for Environment Canada.

HUMMINGBIRD SEQUEL

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It was 5 November 1992 when I received a Ruby-throated Hummingbird in a mesh clothes hamper, a strange guest for that time of year. Instead of migrating south, it had remained at a backyard feeder until it was lured indoors by Mrs. Judy Richardson (see previous article). Doubtless it would have starved or succumbed to cold if the feeder had not been available.

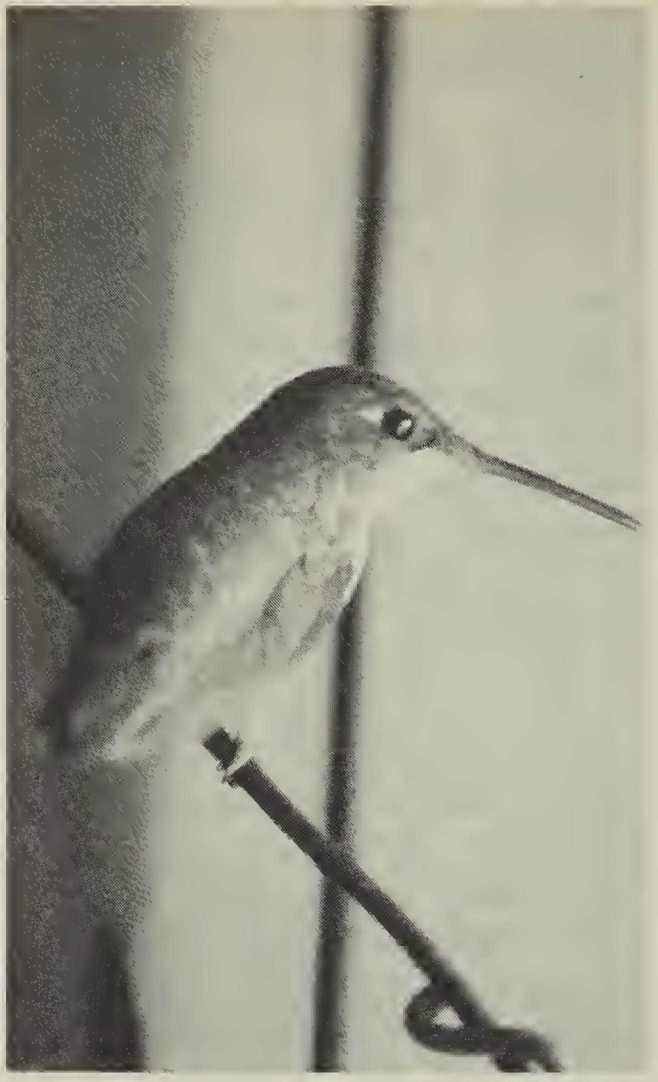
As a volunteer rehabilitator with the Manitoba Wildlife Rehabilitation Organization (MWRO), the offer to care for a hummingbird over winter was a challenge I readily accepted. The chances of its survival were questioned by all who knew of its predicament. Some thought that the only way to keep it alive was to fly it to Mexico or to release it into a greenhouse. Since we could not do either, I improvised. The overwhelmingly negative attitudes of my friends caused me to question the bird's survival daily, but, after I had researched hummingbird diets and habits, I felt confident in my endeavour.

The hummingbird was thought at first to be a juvenile male because it had what appeared to be red feathers under its bill. However, this turned out to be food colouring from Mrs. Richardson's feeders; as soon as it came off I realized the bird was a juvenile female.

To give the bird the illusion of a tropical habitat, I put her in an empty room with an east-facing window with five flowering tropical plants nearby and red osier dogwood branches in a ceramic pot for perches. Initially, I fed the bird fruit cocktail juice and sugar water out of a dish. The hummingbird found it immediately and seemed to enjoy this imaginative concoction. This gave me time to find a more nourishing recipe and to purchase, beg, and borrow feeders. I hung three hummingbird feeders around the room and periodically changed their locations to add variety to the bird's routine flight patterns. I also played "Solitudes" tapes every so often which appeared to calm the bird.

The recipe I found most beneficial was right out of the MWRO manual: one cup of distilled water, four tablespoons of corn syrup, and one tablespoon of baby fruit pablum, all of which were boiled together. I received Nutri Cal (high calorie supplement) from the MWRO Medical Coordinator, Janice McCarthy, and added it to the mixture when it was still warm. When the mixture was at room temperature I added one teaspoon of protein powder and a few drops of commercial bird vitamins. I would then pour about one-quarter cup of this "nectar" into two of my feeders, putting water and commercial nectar into the other. I would store enough food for three days in the fridge, since this was the suggested length of time which this nectar could remain free of a harmful fungus which can kill a captive hummingbird. In order to prevent the growth of this fungus I also had to sterilize and refill all the feeders every night - even if I was dead tired.

Fruit flies were one of the most



Juvenile female Ruby-throated Hummingbird

Rhonda O'Grady

important sources of nutrients for the hummingbird. For natural protein, 500 fruit flies were provided daily (when they were available). I first collected flies from friends who were having problems with them around their homes and let them loose with the bird. This, however, did not come near to the volume of flies needed, for she could easily catch and eat 500 a day. She would catch the flies by darting after them as they flew past and snapping them up with her bill or by licking them off branches. She was like a fruit fly vacuum, sucking up all in her path. At one point I was breeding fruit flies from cultures, leaving the room filled with many hundreds. In one day the flies would be gone and since I never had a problem with fruit flies anywhere else in my home, I knew the bird was devouring them. Finally, I put the flies in a large glass jar with some decaying fruit, thereby providing the bird with a constant supply of flies instead of a feast and famine routine. The hummingbird, however, had her own ideas and was soon flying straight down into the jar, catching the flies right there or scaring them out and catching them in the room. It was strange to hear a hummingbird's beating wings echoing inside a pickle jar. Even more puzzling was when I could not see any flies in the jar, but the hummingbird would still go inside the jar and feed on the flies. This made me question whether she used other senses for catching flies or had amazing eyesight. I believe that without the flies the bird would have been bored sick and possibly would not have survived its stay at my home.

A recent publication in an ornithological journal emphasizes that much remains to be learned about the extent to which hummingbirds feed on insects and other arthropods. The authors state: "It appears that insect feeding by hummingbirds is not incidental or opportunistic but probably occurs regularly in many species.... Foraging for arthropods by hummingbirds may be in response to abundant insects or may be a necessary alternative during nectar shortages.... Whatever the reason for arthropod foraging by hummingbirds it appears more widely spread than previously considered."[1]

The hummingbird had a perch which she always returned to after feeding and another where she cleaned her bill. Like a chef sharpening a knife she scraped her bill back and forth first on one side of a branch and then the other. She was constantly preening and ruffling her feathers. After visiting a feeder she would return to her perch and stick out her translucent tongue several

Makeshift tropical forest for wintering hummingbird. *Rhonda O'Grady*

times in rapid succession. At night, if the lights were off and the room cooled down, she would become torpid. This was when I could clean and work around her without disturbing her. If the lights were turned on outside the room when she was not quite asleep she would wake up and fly towards the light. In the dark she could not see at all and would bump into walls and then retire to the floor. Once, when the bird escaped into another room, I discovered that I could guide her to her room using only the light of a flashlight.

This little bird had incredible energy and seemed content in her artificial quarters. No matter how often she saw me, she never showed any sign of affection; she just wanted me out of her territory. I never handled her or tried in any way to make her bond to me. As the months went by she grew stronger and more colourful as she acquired her adult plumage, but she remained wild, as I had hoped. In February when it came time to pass her over to MWRO volunteers Terry and Randy Langelier, who were completing a greenhouse into which the bird could be released for the rest of the winter, I felt a great loss. Even though we kept our distance, I cherished the little bird. To me, she was a teacher of life, patience, nature, and love. I am glad I helped my little teacher, and I hope others will enjoy sharing my experience. I have kept in close touch with the Langeliers and I hear the hummingbird is doing great. She spends her time defending her territory from the Langelier's pet parrot and chasing fruit flies. In June we shall get together to release the bird back into the wild, possibly with a tiny band around her leg so we will know it is her if she decides to vacation in Winnipeg for another winter.

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OBSERVATIONS ON THE DOVE FAMILY

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Three members of the dove family breed in Canada, namely, Band-tailed Pigeon, Mourning Dove and Rock Dove (feral pigeon). In this paper I deal mainly with the Mourning Dove and Rock Dove which breed in fairly large numbers all across southern Canada.[7] The Band-tailed Pigeon breeds west of the Coast Range in British Columbia.[7]

Over a period of years I have observed many nests of the Mourning Dove in Winnipeg and Whytewold (southern end of Lake Winnipeg). However, a few years ago I was especially attracted to this species because of its activities at our feeder at the cottage. It was interesting to watch how this "bird of peace" took over. Common Grackles and Blue Jays were fended off by the dove's defiant display of lowered breast, ruffled and erected neck feathers, glaring eyes and a low hiss. Wallace Craig mentions that this expression of fear is seen in all brooding birds.[5] Robert Nero goes into detail about a Red Squirrel's encounter with a Mourning Dove at a feeder. The dove finally won out.[13] Peeters also tells of the Band-tailed Pigeon's defense of its nest against a Fox Squirrel, with the squirrel retreating.[14] Robert Nero states this is also the case with owls.[12]

The late Elizabeth Cruickshank, writing under the pen-name "Liz Roley," refers to the pleasant melancholy cooing which begins with the Mourning Dove's arrival in early May. "The soft and unobtrusive notes" of the Long-coo (*cooahcoo-coo-coo*) "carry far on a still day."[15] Billing and cooing and preening establish and strengthen the lifelong bond of this species. The male selects the nest site and gives the Short-coo. He may repeat this for several days until the female responds and flies up to him.[17] This is true not only of the Mourning Dove but of pigeons in general.[5]

When I observed White Rock Doves and Zebra Doves on my visits to Honolulu, I was able to observe the aforementioned habits at close range. The birds came up to me in large numbers when I sat on a bench in the Honolulu Zoo Park and fed them seeds and crumbs.[3] As a matter of fact, the smaller Zebra Doves were so friendly that they climbed all over my arms and hands.

Mourning Doves usually build their nests in deciduous and coniferous trees, but nests have also been found on the ground.[7,8] Harrison mentions that Mourning Doves have also nested in Common Grackles' nests and in a Black-crowned Night-heron's nest.[8] I noticed one in a used robin's nest and also in a rough-edged top of a dead tree six feet from the ground. "Most doves nest singly, or with the nests too far apart to suggest any gregarious nesting habit."[16] In the Honolulu Zoo Park there are, however, hundreds of White Rock Doves which nest along the stout branches of the Banyan trees and in various species of palm tree.[2] As with all doves, the male chooses the nest site; the female builds the nest but the male brings the straws or sticks which he has picked up very carefully; the female accepts the material in her beak and proceeds to construct the nest which is a fragile platform.[17] I was able to observe this procedure at close range with the Zebra Doves in Honolulu.[3]

In general, most species of birds raise one brood only per year, but the Mourning Dove raises at least two, commencing in early May.[7,15] However, they have been known to raise four broods in southern Manitoba in some years.[9]

Most members of the dove family commonly lay two white eggs, producing one male and one female young.[15] The incubation period lasts 15 days and incubation is undertaken by both sexes.[7,16] The male and female take regular daily turns, sitting on the eggs or young; the female sits from evening till morning, the male from morning till evening, "the exchanges taking place usually about 0830 and 1630 hr."[5] I have noticed that during the entire nesting period the parents are very quiet. The parents do not remove the feces of the squabs from the nest; this is unusual.[16,17]

The feeding of the squabs is done by both parents and it is fascinating to watch.[15] From my own observations of the White Rock Dove in Honolulu (in a coconut palm immediately below the lanai), I noticed that the young bird inserts its beak into the side of the parent's beak and then a tug-of-war begins. The adult bird, with a pumping motion of his or her body, regurgitates food from its crop and feeds the young what is known as "pigeon's milk" and later regurgitates seeds.[2,15] "The entire process occupies about six minutes."[16] After several days I noticed the squab exercised its wings vigorously during this feeding procedure.[2] The nestlings fledge in 15 or 16 days.[2,16] Stokes records anywhere from two to three weeks to fledge.[17]

Adult doves are principally weed seed eaters.[16] They also often can be seen on gravel roads. In Honolulu I noticed many Zebra Doves on the sea beach. Sand and gravel aid digestion of seeds.[16] Water is also an essential element as it too aids the digestion of seeds. Hundreds of Zebra Doves can be seen in the Zoo Park in Honolulu where the grass is completely soaked early every morning. I found it interesting to observe the unique drinking habits; it is one of the few birds which does not lift its head up while drinking.[1]

Frequently Mourning Doves can be seen perched motionless on the wires along a highway or in the tree tops. They are rather shy and generally fly off before one can get too close. While the bird is in flight there is a sharp whistling sound of the dove's wings.

In September, after the breeding period is over, the large majority of Mourning Doves fly south as far as Panama and the West Indies.[7] However, occasionally they have attempted to overwinter around farms and grain elevators.[11]

While we have the Mourning Dove with us during the summer months, the Rock Dove (feral pigeon) stays with us the year round, no matter what the temperature.[4,7] They make their nests in various places, including on the ground.[4] I have observed their nests on ledges under bridges, inside broken windows of deserted buildings, on ledges of high buildings in our downtown area, and on thick beams under overhangs on the pavilion in Assiniboine Park.

Although the family name of *Columbidae* has nothing to do with Christopher Columbus, it is reported that "Columbus, when he returned to the Caribbean in 1493 with 1500 eager Spanish colonists, he brought caged rock doves — the first birds of this Old World genus ever to coo and nest on New World shores."[10]

These birds have been used for centuries to carry messages, especially during war times. Today we have pigeon fanciers who spend time and money raising and training racing pigeons. While there is the White Rock Dove in Hawaii, research shows that there are hundreds of varieties which are different in colouring from their parent stock. Many are quite beautiful. The Rock Dove can be seen worldwide in temperate and tropical regions.[1]

Biblical literature reveals a great love, admiration and respect for the pigeon (Turtle Dove). Hear the words of David, the Psalmist, in his deep distress — "Oh that I had wings like a dove; for then I would fly away, and be at rest."

And so, from time immemorial doves have played an important part in the life of mankind.

I am grateful to Robert W. Nero for his constructive criticism of an earlier draft of this article.

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NIGHTHAWK ON THE GOLF COURSE

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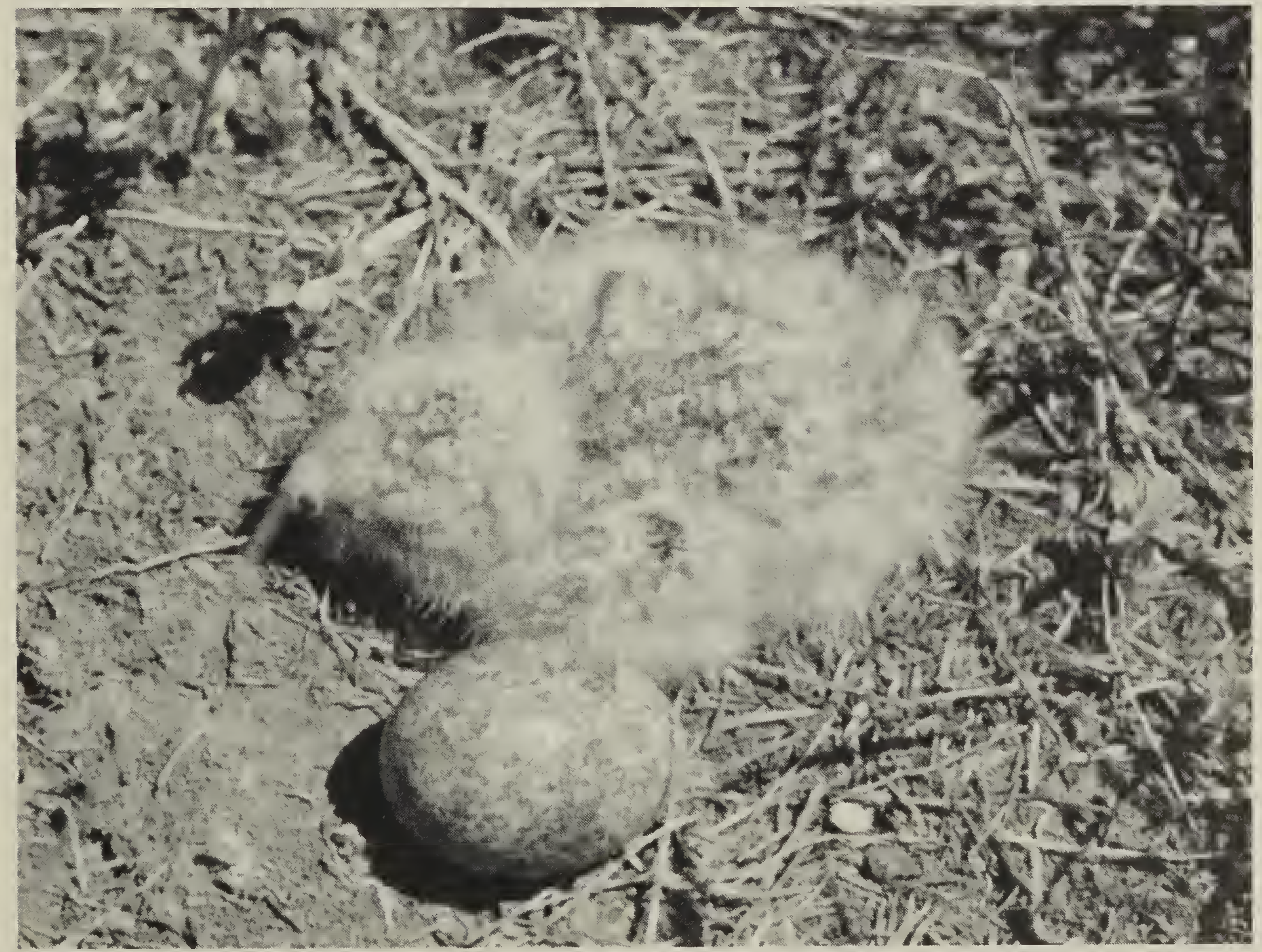
A bird I enjoyed photographing last summer (1992) was a nestling Common Nighthawk. John Whittel (the manager of the Weyburn Golf Course) found the nest right out on an open fairway.

The young were hatching and the mother was most excitable and protective. She used the age-old trick that so many birds employ — the broken wing trick. She trailed her wings on the ground seemingly unable to stand, making pitiful, soft, weeping sounds uttered with every flutter. As always, after leading me some distance away from the nest site, she seemed miraculously to recover the full use of her wings — one more human completely deceived. This trick is always so convincing that I always have to oblige and follow a time or two.

As the picture shows, nighthawks do not make nests. They choose a nesting site. Anywhere on a bare piece of ground, a bald spot, a rocky ledge, or a flat rooftop, they lay two eggs. The eggs are smoke coloured with brownish blotches that blend perfectly with the spot chosen.



Common Nighthawk nest, Weyburn Golf Course. *Mabel Charlton*

The nighthawk is not only a bird of dusk to dawn; sometimes, even at midday, it will fly off its roost, swooping suddenly down like a dropped stone, while the rush of air through the stiff flight feathers produces a sound like a snapped bow string. They catch themselves with a jerk and spiral away on high again to repeat their performance, over and over and over. It is a sound that gives me the greatest joy. It is believed to be a mating display, but I have heard it continued long into the summer — probably as a territory-claiming performance. I like to think it is from the sheer ecstasy of life. For it is written: "The beasts of the field shall honour me... the dragon and the owls."

Another habit of nighthawks that has given me countless hours of pleasure is when I remain out late into our short summer nights to hear their rather nasal call — a *peent* or *pee-ik* or *pee-it* — a penetrating cry, softened by distance and regularly repeated. This call may be heard all night, even until full day, when the hot sun sends them to rest.

I love these slender, slim-winged birds with their ugly, rounded heads and great eyes and whiskery, cavernous mouths. They are a delight to me.

HOODED WARBLER IN REGINA

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Sunday 26 May 1985 was a fine spring day in Regina with the sun shining brightly. About noon I received a telephone call from Bob Luterbach advising me that he, Chris Adams and Robert Kreba had a female Hooded Warbler under observation in Regina Cemetary. I drove there immediately, joined the others and soon found the bird hunting food in a tree. We had excellent views, noting the field marks so there was no doubt as to the identity. It was a "lifer" for me.

I do not know who discovered the bird. The only account I have seen was a report which appeared in *American Birds*, Vol. 30, p. 316, issue of Fall 1985. Relatively few members of the Saskatchewan Natural History Society ever see *American Birds*, so, as one of the observers, I am reporting the occurrence of this rare visitor, Saskatchewan's first, for their benefit. Other observers came after I left as the warbler remained in the vicinity for some time. By virtue of a number of recognizable photographs this Hooded Warbler is now on the confirmed list of Saskatchewan birds.

FIRST IDENTIFICATION OF HOUSE FINCHES IN WEYBURN

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In early December 1992 I was contacted about the presence of three unidentified birds at 47 Prairie Avenue in Weyburn, Saskatchewan. This location, the home of Leo and Sophie Belanger, is an active winter bird gathering spot made possible by an extensive feeding program.

The description of one bird in particular caused me to suggest House Finch to Belanger, who at the time was somewhat mystified about its identification. During the same period he reported the existence of three Pine Siskins at his feeding stations. The consensus of Belanger and others, who had not yet observed the birds in question, was that it surely must have been a Purple Finch. They arrived at this decision because of the bird's coloration which was described as being red in the head and breast areas. The fact that the Purple Finch is a regular, if not a common, visitor further substantiated that position.

On 27 December, I accompanied Bob Luterbach of Prince Albert to the Prairie Avenue feeders in hopes of picking up new species for the Christmas Bird Count. Two finch-like birds were foraging at one of the feeder stations. Without field glasses, they resembled large Pine Siskins. Luterbach immediately identified one of the birds as being a female House Finch. This deduction was spurred on by the fact that the bird displayed a paler and less pronounced facial pattern than the Purple Finch. Its underparts were white with definite streaking, while its back showed a grey-brown coloration. The female Purple Finch, on the other hand, displays a distinct facial pattern, with a pale line over the eye and a dark stripe below a dark cheek.[2] The second bird was found to be an immature House Finch.

A few minutes after the identification of the first two members of the species, the male House Finch made its appearance. It showed a bright orange-red forehead, breast and rump, with a brownish back, a stripe over the eye and dark streaks on the side and underparts. It differed from the male Purple Finch, which displays a more raspberry coloration and a body which is void of side and belly streaks. The birds were observed for approximately five minutes before they departed. Over the next few days, the Belangers, Luterbach, Greg Bobbitt, Nick Postey, and Chuck Hodgson observed the birds on at least four separate occasions. Leo Belanger admitted that the birds which he had thought to be Pine Siskins were indeed the House Finches witnessed at the later date. Photographs of the House Finches were taken by Belanger and Mabel Charlton.

The House Finch, unlike the House Sparrow, is a North American bird. Originally a west coast native, its expansion has been unusual. In the 1940s an illegal shipment of House Finches from California, destined for the bird cages of New York City, was seized and the birds were released.[3] Since that time the House Finch population has exploded and numbers in some areas exceed those of the ever-present House Sparrow. As of October 1990, 11 sightings of the House Finch had been recorded for the province.[1] Whether its arrival is from the east or west is speculation. Its appearance in Weyburn and other parts of Saskatchewan, however, is a premonition of the influx which seems destined to occur.

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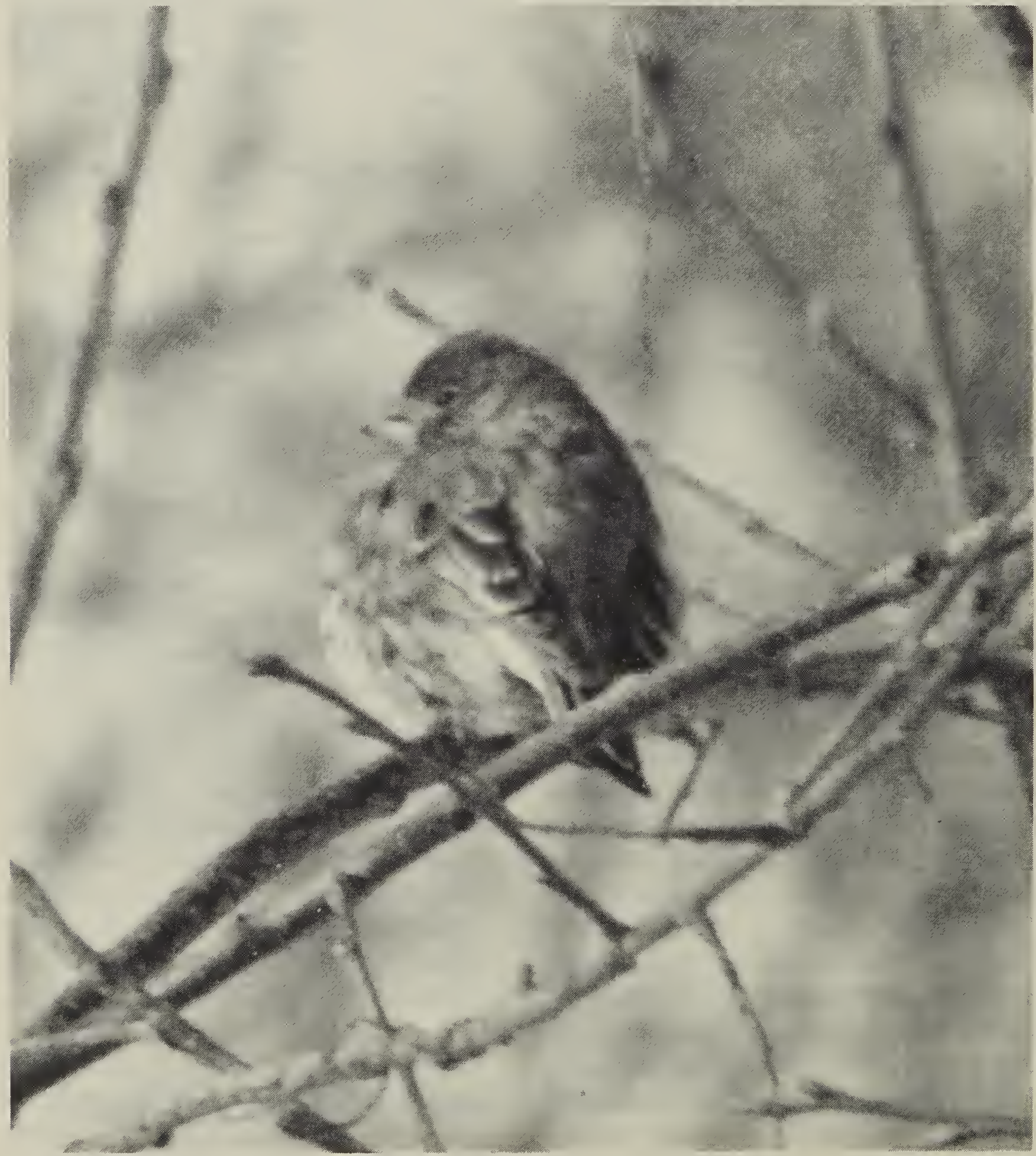

Male House Finch, Weyburn, 1992. *Mabel Charlton*

MID-CONTINENTAL JAEGERS: A MANITOBA PERSPECTIVE

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Jaegers and skuas are predatory birds, closely related to gulls. Whether they are seen on Arctic breeding grounds, on pelagic migration routes, or somewhere far inland, these birds create excitement among birders. They also have a reputation for turning up in unfamiliar or downright hostile surroundings. South Polar Skuas wander deep into Antarctica, even to the Pole itself.[31] Even more remarkable, one was photographed at Lake Oahe, North Dakota, 13 July 1989.[4] Long-tailed Jaegers have been seen on the Greenland icecap.[72] Both Long-tailed and Pomarine Jaegers have been observed migrating over the Brooks Range of mountains in Alaska.[12] Thus, mid-continental records are perhaps not surprising. All three jaeger species (Parasitic, Pomarine and Long-tailed) have occurred in most of the 50 states and every Canadian province (Long-tailed Jaeger is hypothetical in Prince Edward Island).[17,32] This article reviews inland records of the three jaegers in Manitoba, in comparison with neighbouring regions.

A Note of Caution Adult jaegers in breeding plumage with their elongated central tail feathers are

Long-tailed Jaeger, Cape Merry, Churchill, Manitoba. *R.F. Koes*

Parasitic Jaeger, Churchill, Manitoba, July 1982. *R.F. Koes*

relatively easy to identify, but immature or transitional plumages present identification challenges, even in the hand. In an amusing (perhaps apocryphal) tale, a jaeger reportedly circled a boatload of birders three times, and was identified as a different species on each pass![8] Jaeger identification is often based on impressions of flight characteristics and proportions, which can vary with the bird's activity. A slowly cruising Parasitic Jaeger may seem bulky enough to be a Pomarine, then resemble a Long-tailed Jaeger when it slips into high gear after a passing tern. On the other hand, one might identify a poorly seen jaeger as Parasitic by default, when it is better left unnamed.

Analysis of Records Tables 1 and 2 summarize all records known to me of inland jaegers in Manitoba, including Long-tailed Jaeger records previously compiled by Crawshaw.[11] In the following discussion, the status of the three species in Manitoba and neighbouring regions is compared. The review of neighbouring regions is admittedly not comprehensive.

Parasitic Jaeger This is the jaeger most frequently encountered in southern Manitoba, with 24 known records between 1918 and 1991 (Table 1A). The increase in frequency of sightings since 1970 (17 of the 24 records) presumably reflects increased observer effort and improved reporting. Similar increases have been noted for several other uncommon migrant water birds.[74,75] Most records of Parasitic Jaegers involved single birds; three involved two individuals each, and as many as five may have been seen separately at St. Ambroise, 9 September 1989. Most records (63%) were in September and October, and the remainder were

Table 1. ANNOTATED LIST OF JAEGER RECORDS IN MANITOBA

A. Parasitic Jaeger

- 13 July 1918, Pelican Island, n. LW. Light ad. found dead.[58]
- 25 Sept. 1929, Scanterbury (s.e. LW). Light ad. shot.[10,44]
- 14 June 1934, Pine Island, Lake St. Martin. Two birds.[67]
- 17 Oct. 1936, Husavick (s.w. LW). Dark imm. shot.[46]
- 20 Oct. 1940, Husavick (s.w. LW). Dark imm. found dead, MMMN # 3.6-335.[49]
- 17 June 1961, Pinawa Channel (WR). One bird.[53,54]
- 1 Aug. 1966, Gimli (s.w. LW). Two light ad.[69]
- 9 June 1973, Whitewater Lake, RMNP. One bird.[35]
- 27 June 1973, Southern Indian Lake. Light ad.[76]
- 18 Sept. 1976, Oak Hammock Marsh. Dark bird.[21]
- 26-27 July 1978, St. Ambroise (s. LM). Light ad. photographed.[34,65]
- 30 Sept. 1979, St. Ambroise (s. LM). One: G. Holland, I. Ward.
- 6 Sept. 1980, Assiniboine Park, Winnipeg. One: G. Holland, R. Koes et al.
- Late June to about 10 July 1983, Clandeboye Beach (s. LM). One, unpublished photos: S. Haig.
- 13 Sept. 1986, Allegra. One light imm. flying s. over farmland: R. Knapton, R. Koes, P. Taylor (MORC). Cited as Winnipeg in *American Birds*.
- 18-19 Sept. 1987, Seven Sisters Falls (WR). One light imm.: R. Parsons, G. Grieef, P. Taylor (MORC).
- 11 Oct. 1987, Seven Sisters Falls (WR). One light imm.: P. Taylor (MORC).
- 15 Sept. 1988, nr. East Meadows Ranch (s.e. LM). One light, ad.?: R. Taylor.
- 26 Sept. 1988, Clandeboye Bay (s. LM). One light imm.: R. Parsons.
- 24 May 1989, Waskada/Deloraine. Two light ad. flying e., pursued 30 km by road: K. De Smet, M. Conrad.
- 9-17 Sept. 1989, St. Ambroise (s. LM). Five sightings in 4 hours on 9th: S. Holohan, J. Steeves. One light ad. on 11th (M. Siepman) and 17th (G. Grieef, R. Koes, R. Tkachuk).
- 13 Oct. 1991. St. Ambroise (s. LM). One bird: G. Holland, R. Koes.
- 19 Oct. 1991. Grand Beach (s.e. LW). One light bird: J. Weir.
- 20 Oct. 1991. Clandeboye Bay (s. LM). One dark bird: R. Parsons, B. Shettler

B. Long-tailed Jaeger

- Sept. 1896, LW. Dark imm. shot.[66]
- 8 Oct. 1902, Clandeboye (s.w. LW). Imm.[11,58]
- 17 May 1903, Aweme. One shot.[2,11,50]
- 10 May 1940, Pine Falls (WR). One bird.[11,48]
- 13-27 June 1969, nr. Thompson. Up to 29 birds.[11,39]
- 3 June 1973, between Roblin and Lake of the Prairies. One ad. flying n.e.: W. Neily (MBRC).
- 14 June 1982, Leaside Beach (w. LW). One light ad. caught; photos.[11]
- 14-18 June 1985, Seven Sisters Falls (WR). One light ad.: P. Taylor, P. Ingham et al. (MORC, MBRC).
- 4 June 1987, Dauphin Bay, Lake Winnipegosis. One light ad.: R. Knapton, unpublished report, Manitoba Wildlife Branch.
- 14 April 1989, Niverville. One light ad.: R. Dueck.

C. Pomarine Jaeger

- 19 Sept. 1932, Netley Marsh (s. LW). Imm. female found shot.[45] MMMN # 1.2-2066.
- 30 Oct. 1975, Marshy Point (LM). Light ad. found dead. Emaciated (347 g). MMMN # 1.2-3399.

Note: Observers' names are given only for unpublished records. A more detailed listing has been deposited with the Manitoba Ornithological Records Committee, and is also available from the author. This listing includes seven additional records of unidentified jaegers (see Table 2).[11,47,55]

Abbreviations: ad. = adult, imm. = immature, LM = Lake Manitoba, LW = Lake Winnipeg, MB = Manitoba, MBRC = Manitoba Bird Record Card at MMMN, MMMN = Manitoba Museum of Man and Nature (190 Rupert Ave., Winnipeg MB R3B 0N2), MORC = Manitoba Ornithological Record Committee card at MMMN, RMNP = Riding Mountain National Park, WR = Winnipeg River. "Light" and "dark" refer to colour morphs ("phases"). Please send any information on missing specimens or additional records to the author.

Table 2: SUMMARY OF MANITOBA JAEGER RECORDS BY MONTH, DATE AND LOCATION

	Parasitic	Long-tailed	Pomarine	Unidentified*
April	0	1	0	0
May	1	2	0	2
June	5	5	0	0
July	2	0	0	0
August	1	0	0	0
September	9	1	1	0
October	6	1	1	3
1892-1911	0	3	0	0
1912-1931	2	0	0	0
1932-1951	3	1	1	1
1952-1971	2	1	0	1
1972-1991	17	5	1	5
Lake Winnipeg	6	3	1	2
Lake Manitoba	8	0	1	2
Other lakes	3	1	0	1
Winnipeg River	3	2	0	0
Other rivers	1	2	0	0
Elsewhere	3	2	0	2
Totals	24	10	2	7

* Month unknown in two cases

scattered between May and August. Most sightings occurred at or near major lakes and rivers, especially Lakes Manitoba and Winnipeg. Noteworthy exceptions were birds apparently migrating overland near Deloraine in May 1989 and near Allegra in September 1986.

The Parasitic Jaeger is also the most frequent of the three species in Minnesota, where it is a rare but regular fall migrant on Lake Superior, most often seen in the Duluth area.[37,43] The Duluth records appear to represent the western limit of a migration route through the Great Lakes region.[24,29,71] Other Minnesota records include one sighting (and an unidentified jaeger) on Lake of the Woods near the Manitoba border.[37,40,41] Duluth area records extend from early August to late October, with a peak in early to mid-September, resembling the southern Manitoban pattern (Table 2). In contrast, Janssen lists just five spring records in Minnesota.[37] The Parasitic Jaeger is an accidental fall migrant in North Dakota, with about six records to 1990, and is unreported in South Dakota.[5,17,19,70]

Four Saskatchewan records of Parasitic Jaegers were reviewed by Bird.[6] Fifteen fall reports in *American Birds*, 1976-1990, indicate a status similar to that in southern Manitoba, and there are also single observations in May, June and July.[6,25,61] Farther west, there appears to be a sparse but regular movement of Parasitic Jaegers through Alberta, notably at Beaverhill Lake, and again with a peak in September.[13,14,15,64]

Long-tailed Jaeger This jaeger is the second most frequently reported inland in Manitoba (Table 1B). Only four of the ten records occurred prior to 1969. Except for the flock of up to 29 birds near Thompson in June 1969, all records involve lone birds. Half the records occurred in June, and only two in fall. Saskatchewan's first documented Long-tailed Jaeger occurred at Last Mountain Lake, 8-17 July 1982.[26,27] Previous sightings occurred in June, July (twice) and September.[3,30,56,57,61] An exceptionally early report at Regina, 22 April 1989, occurred just eight days after an equally surprising Manitoba sighting.[28] One Minnesota record also occurred in April, one in July, and five in fall migration.[37]

Of 16 Alberta reports up to 1980, only three were in June and the majority of recent sightings were in August or early September.[14,16,30,60,63,64] Excellent photographs document a September 1977 record at Beaverhill Lake.[14] The Long-tailed Jaeger is a relatively recent addition to the state lists for both North and South Dakota.[9,22,70] More southerly inland records in the U.S. have almost all been in the fall, but isolated June records extend south at least to Kansas.[52]

Pomarine Jaeger This is the rarest jaeger in southern Manitoba, with only two fall specimen records (Table 1C). By coincidence, the 1932 bird was found just three weeks before South Dakota's sole record; the species is unknown in North Dakota.[7,19,70] In Minnesota, however, Pomarine Jaeger records outnumber those of Long-tailed Jaeger, as they do in Ontario, where "fall" records extend from late August to early January.[36,37,71] Speirs cites only one spring record for Ontario, and Janssen only one for Minnesota.[37,71]

Saskatchewan's two Pomarine Jaeger specimens were obtained on 9 November 1922 and (amazingly) 30 December 1976.[51,73] There are also about nine sight reports of Pomarine Jaegers in Saskatchewan (R. Kreba, pers. comm.), but published details are sparse.[1,61] The Pomarine Jaeger is reported to leave the Arctic a few weeks later than the other two species, although this is not apparent in the Minnesota records.[37,68] The Pomarine Jaeger was listed as hypothetical in Alberta by Salt and Salt.[64] The most fully described of four sight records was at Lake Athabasca, 6 June 1969.[15,33,60,63]

Discussion The three jaegers show three different patterns of rare occurrence in southern Manitoba, as outlined above. Do these records represent random wanderings inland, or are they evidence of "short-cut" migration routes between the Arctic and warm oceans? Such routes have been postulated for Arctic Tern and Sabine's Gull, as well as jaegers.[23,38,62] Overland migration of Parasitic Jaegers in Africa and the former Soviet Union appears to be well documented.[20]

The relative frequency of occurrence of the three jaeger species in southern Manitoba parallels the southward extent of their breeding ranges. The Parasitic Jaeger nests as far south as coastal Manitoba and Ontario.[24,38,59] The southern limit of the Long-tailed Jaeger's breeding range is near the Manitoba-Keewatin border, and this species is a regular migrant at Churchill (arriving overland?).[24,38]

The Pomarine Jaeger nests mainly north of the Arctic Circle, and is a rarity even at Churchill.[24,38] Note, however, that the frequency of occurrence of vagrants or rare migrants is a function of total population and other factors as well as geographic proximity.

Parasitic Jaegers nesting around southern Hudson Bay could benefit from a migration route to the Atlantic via the Great Lakes, if the risks of overland migration are not too great. Migrant seabirds in southern Manitoba, however, do not necessarily originate in or near northern Manitoba. Extremely rare visits to southern Manitoba by Common Eiders, for example, originate from Alaska or the Beaufort Sea, not Hudson Bay.[42] The similar frequencies of Parasitic Jaeger records in Saskatchewan and southern Manitoba point to a sparse, broad-front movement from the Arctic, rather than the fringe of a migration from Hudson Bay.

This suggested movement of jaegers could lead southeastward to the Great Lakes and the Atlantic, southward to the Gulf of Mexico, or southwestward to the Pacific. The similar timing of Parasitic Jaeger records in southern Manitoba and Minnesota, and the absence of South Dakota records, tend to support the first of these three routes. Jaeger records in the Gulf of Mexico between November and April, however, indicate that some birds complete an overland migration, possibly following the Mississippi River.[18,77] Jaegers seen in Alberta in fall are likely Pacific-bound. The concentration of southern Manitoban Long-tailed Jaeger records in June coincides with migration at Churchill, but not with broader patterns in neighbouring regions, where fall records predominate.

The scarcity of Pomarine Jaeger records in southern Manitoba is consistent with this species' general scarcity in mid-continent, although a few overwinter in the Gulf of Mexico.[18,77] Details of inland movements of all the jaegers are likely to remain a mystery, however, unless sophisticated tracking methods such as satellite telemetry can be applied to the problem.

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GREAT GRAY OWL — WEBB LAKE, MANITOBA

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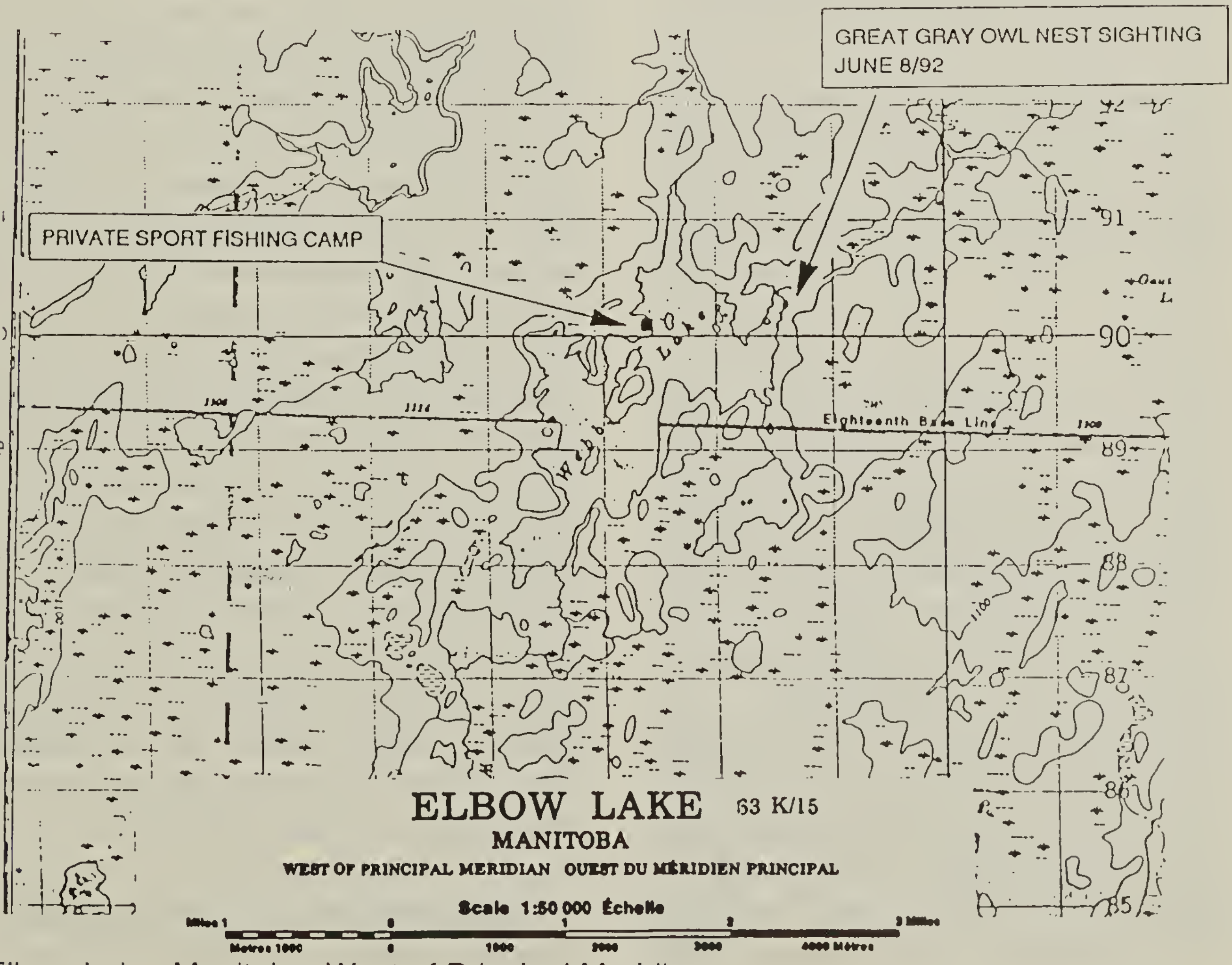
Webb Lake is approximately 60 km northwest of Flin Flon in northwestern Manitoba. The area was heavily damaged during the forest fires of 1989. Only a few isolated patches of forest escaped the flames. There is a Bald Eagle nest in a large poplar in one of these sites at the northeast shore of the lake. In 1991, Archie Carruthers, Keith Elliott, and I observed eagles with young in this nest which is about 10 m above the ground.

During a six-day stay at Webb Lake, 5 to 11 June 1992, we frequently observed Bald Eagles in the vicinity of this nest, but were unable to determine if it was actually in use. While we were observing the eagle nest from our drifting boat on 8 June, Elliott noticed a second nest farther back in the bush. We landed and made our way through the bush and rocks until we could see a Great Gray Owl on the nest which was about 10 m above the ground in the fork of a large live poplar. This was approximately 50 m inland from the lake shore and about 30 m away from the Bald Eagle nest. The owl made no move to leave the nest during our 20-minute observation. It merely looked at us, peering down through the sticks on the nest edge when one of us approached the base of the tree briefly.

According to Bob Nero, although Great Gray Owls are expected to nest in this area, the nearest recorded nests have been 110 km south, near The Pas, and 135 km east, near Wabowden.


GREAT GRAY OWL NEST SIGHTING
JUNE 8/92
PRIVATE SPORT FISHING CAMP
Webb
Eighteenth Base Line
91
90
89
88
87
86
85
ELBOW LAKE
63 K/15
MANITOBA
WEST OF PRINCIPAL MERIDIAN OUEST DU MÉRIDIEN PRINCIPAL
Scale 1:50 000 Échelle

Elbow Lake, Manitoba. West of Principal Meridian.

EVIDENCE OF SNOW-PLUNGING BY BOREAL AND BARRED OWLS

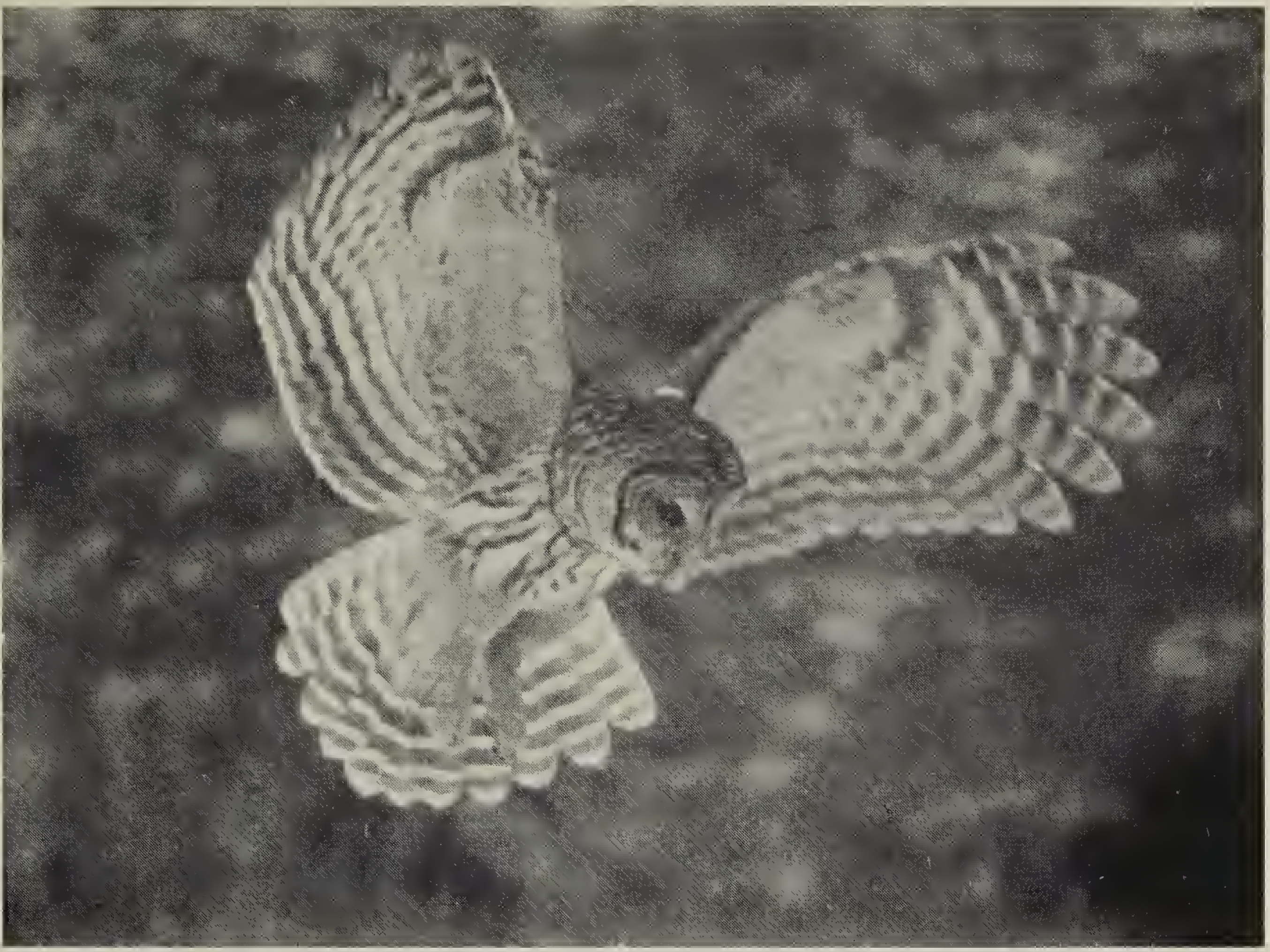
ROBERT W. NERO, Box 14, 1495 St. James Street, Winnipeg, Manitoba, R3H 0W9

In 1978, Curry-Lindahl, in his foreward to a major reference on technical publications about owls, noted that "...many species of owls rely not only on a sensitive vision, but, if necessary, to a considerable extent also on remarkable auditory powers when hunting rodents and shrews during the winter when these mammals often move under the snow cover. At least the tawny owl, Short-eared Owl (*Asio flammeus*) and Long-eared Owl (*A. otus*) are able to localize from the air, invisible small mammals and to catch them 'blindly' on the right spot below the snow surface. Probably also other species of owls use this technique; I am almost certain that the Boreal (Tengmalm's) owl (*Aegolius funereus*) does it."[2]

Snow-plunging as a method of obtaining prey under deep snow conditions is so common a characteristic of the Great Gray Owl that plunge-marks can be used to prove the presence of this species.[1,5,6] Norberg, in a review of feeding behaviour of northern forest owls, pointed out that the large size of the Great Gray Owl's head and face "improves its probabilities of auditory detection of concealed prey and enhances localization accuracy. The asymmetry of the external ears improves sound localization.... Its large weight enables it to make deep plunge-holes in the snow and to catch prey deep below the snow surface where lighter owls could not possibly get at the prey."[6] Norberg cites one report of a Great Gray Owl that plunged through a snow crust hard enough to bear an 80-kg man.[6]

Typically, a perching or hovering owl — and the broad wings of the Great Gray owl suit it admirably for hovering or gliding slowly — locates prey by sound, then drops head downward and forcibly into the snow, breaking its fall with its wings and reaching deep with its long legs for its prey. Mikkola writes: "As it dives downward its head is suddenly directed towards its prey and it almost seems that the head hits the surface of the snow first. However, both Eero Kemila [whose photo beautifully illustrates this behaviour] and Leinonen ... believe that in the instant before hitting the snow the owl will draw back its head, extend its legs and stretch its feet forwards with the talons fully spread. However, the high speed of the dive renders it impossible to prove precisely what does happen by direct observation."[4] Not all plunge-marks made by Great Gray Owls are of the same size; in some cases, birds drop only their feet into the snow, barely touching with their body. At times there may not even be any mark left by the wings. Small mammals feeding or tunnelling at or near the surface of the snow — and this is not uncommon — may be taken by a shallow pounce, rather than by a full-out dive. Thus interpretation of plunge-marks requires some caution.

Brief mention has been made of an observation by Richard Knapton



Snow-plunging Barred Owl. *James R. Duncan*

of snow-plunging by a Boreal Owl.[5] Because of the apparent scarcity of this behaviour in this species, Knapton's note is presented here in detail for the first time. The following is from a letter he sent to Soren Bondrup-Nielsen on 25 January 1979: "A Boreal Owl has been seen in the Assiniboine 'Forest' here in Winnipeg for the past two days; today (25 January) I observed the bird for about 35 minutes at noon while it was hunting along ski trails and in open spots in the wood. On one occasion the bird plunged into the snow from a perch about 2 metres up in an aspen; the plunging behaviour seemed similar to that of the Great Gray Owls — that is, the bird finished its plunge into the snow with its wings open and resting on the surface of the snow (primaries were traced on the snow). The plunge hole was about 10 cm deep (estimated, not measured) and the shape resembled those of Great Grays — large body indentation with 'bulges' on the side presumably caused by wings. It evidently failed to capture prey, as it flew onto a nearby perch with nothing in its talons. It continued hunting by flying distances up to 30 metres, perching and looking intently at the ground for up to 2 minutes, then off to another perch, and so on. The day was cloudy, totally overcast, hence the bird's activity at midday" (pers. corres., 26 October 1987, R. W. Knapton).

As Norberg indicated, the Boreal Owl may be too light in weight to successfully snow-plunge. Unless the snow is especially soft, it probably couldn't go deep and, moreover, its legs are relatively short compared to those of the Great Gray Owl. The Barred Owl, in the same genus as the Great Gray Owl, and considerably heavier than the little Boreal Owl, conceivably could snow-plunge. Yet this behaviour is apparently uncommon in this species. Mark Elderkin, who studied Barred

Owls in Nova Scotia, notes: "Although I have never actually witnessed this be- haviour, I have some evidence that it does occur and have seen plunge marks along wooded-field edges. Usually small bits of feathers betrayed the species of owl and in one instance, drops of blood indicated a successful capture. I would suggest that in severe winters when snows are deep and alternative foods are scarce, subnivean capture of small mammals are more frequent than in mild years. An eyewitness account of snow plunging conveyed to me by a local man confirmed the existence of the behaviour. In this instance, an unsexed Barred Owl was observed hunting along a wooded-field edge during daylight hours in 1985. Of three plunges made by this owl, only one was successful in the capture of an unidentified small mammal" (pers. corres., 6 September 1987).

Upon enquiry, Dave Johnson, who studies Barred Owls in north-central Minnesota, responded as follows: "Have never actually witnessed a Barred plunge, but have one observation from Jan. 1983, Becker County, MN, of a nice plunge hole made by a Barred. It was near one of my nest boxes, and I had seen a Barred in the vicinity on four occasions during that week. I have looked for Barred plunge holes for five years now. The plunge hole occurred in a small marsh pocket (30 yards across) in a northern hardwood forest type, where overhanging trees provided a perch. I recall snow depths of 15-18 inches in the marsh pocket" (pers. corres., 3 September 1987). The late Don Follen, a Wisconsin owl student, had this to say: "Snow plunging: I've seen Bd's [Barred's] on several occasions in the snow up to their pits. This is of course soft fluffy snow" (pers. corres., 24 August 1987).

Despite our many years in the field in winter in southeastern Manitoba looking for owls, Herb Copland and I have only three indications of snow-plunging by Barred Owls. Late in the afternoon of 4 January 1981, along the Glen road east of East Braintree, we found fresh signs of snow-plunging by a bird of Barred Owl size. There were at least six plunge-holes in the snow over a grassy field. Except for the small size, they resemble marks made by Great Gray Owls. The holes were close to trees. Again, and in the same vicinity, on 11 January 1981 we saw similar plunge-holes in the afternoon, and then at 8:00 p.m. a Barred Owl came out and perched in a nearby tree. We assumed that it was the bird that had made several Barred Owl-size plunge-holes at a new site several kilometres away. At one plunge-hole there was an imprint of the owl's face showing the bill, just as we have seen at numerous Great Gray Owl plunge-holes. This imprint was the size of a Barred Owl's face.

In our experience, Barred Owls are seldom seen here, especially in winter. The species, as noted by Johnsgard, "is essentially a semi-nocturnal to nocturnal hunter."[3] Apparently less bold and seemingly more restricted to hunting within woods than Great Gray Owls, only six Barred Owls have been seen by Herb Copland and myself over the past 20 winters. Jim and Patsy Duncan, on the other hand, recorded three sightings of Barred Owls in winter 1986-87: one at 5:00 p.m. - 12 December; one at 2:22 p.m. - 2 February; and one at 4:49 p.m. - 16 March. The latter bird, which they captured when it came into a lure, was reported as noticeably thin (pers. corres., 1987). Herb and I captured one at 3:15 p.m. on 4 February 1979, northeast of Lac du Bonnet. Upon seeing what we assumed to be a Great Gray Owl back some distance from the road in a grove of aspens, we set out to capture the bird; on the third cast of the lure, the owl came out from the trees in pursuit of it. We were surprised to see, when it was close, that it was a Barred Owl. It turned away at the last minute, but landed nearby and a moment later came in to a live mouse and was netted by Herb. Its belly plumage was wet and there was even a little ice on some parts. We guessed that it had roosted in wet snow in a tree cavity. It was kept in the car long enough to dry out its plumage before we released it.

I am particularly grateful to Richard W. Knapton for allowing me to use his observations of the Boreal Owl. Thanks for their information are also owing James R. Duncan, Patricia A. Duncan, Mark F. Elderkin, David H. Johnson and the late Donald G. Follen, Jr. For congenial companionship on owl forays, I am indebted to Herbert W. R. Copland.

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"Recently, estimates on the number of species [of plants and animals] on earth have been revised dramatically upward, from around 5 or 10 million to between 30 and 50 million. The point is, no one knows. Only 1.4 million species have been classified." *Verlyn Klinkenborg, Audubon Jan-Feb/92*

PROBABLE BARN OWL RECORDS FOR MANITOBA

ROBERT W. NERO, Box 14, 1495 St. James Street, Winnipeg, Manitoba,
R3H 0W9

Although the Prairie Provinces are outside the usual range of the Barn Owl,[1,4,9] various species of owls found inside buildings in this region are sometimes mistakenly called "Barn Owls" by inexperienced observers. Reports of "Barn Owls" here, therefore, tend to be regarded with a little scepticism. Great Horned Owls, Boreal Owls and Northern Saw-whet Owls are suspect species since these birds now and then, especially in winter, are found in buildings. Great Horned Owls occasionally nest in old barns and all three species have been found sheltering in out-buildings. Boreal Owls in Alaska have been observed using deserted igloos for shelter; starving birds in New England have entered buildings even in villages and cities.[2] Even the Barred Owl has been observed inside a building — in this case, nesting! — though this must be considered an exceptional case (pers. comm., C. S. Houston, 1992).

A bird identified as a Barn Owl and described to me on 15 March 1988 by Sandra Rex of Holland, Manitoba, however, seems likely to have been a genuine Barn Owl. According to Mrs. Rex, this bird was seen by four members of her family as it perched on a rafter in a barn on their farm 8 km northwest of Holland. This was in the fall, probably September, in about 1985. The owl, which was present for about 10 days, had a "creamy-coloured face" and "lacked horns." At first, because the bird was so pale, it was thought to be a Snowy Owl, but it had "a dark line around a heart-shaped face" similar to that of the Barn Owl illustration in their copy of Godfrey's *Birds of Canada*.[4] Mrs. Rex added that the bird in their barn was "paler than the one in the book." Although they did not see the owl hunting, they believe it was "after swallows and mice" which were in and about the barn.

More recently, what was believed to be a Barn Owl was observed by Arnold Collins at Pilot Mound, about 40 km south of Holland. Collins, who has been interested in birds for 70 years, found this bird at dusk perched on a hydro wire by an old yard site with a shed and trees near his home about 2 km west of town. This was in the last week of November 1991 (pers. comm., 24 January 1992). Although he had no binoculars when viewing the bird, Collins recalled that he was struck by the "creamy-coloured clown-like face ... a peculiar face with an oval-shaped lighter ring under each eye." He thought it an odd-looking owl, unlike any he'd ever seen, and thought it strange to be perched on a hydro wire. He identified it as a Barn Owl shortly thereafter when he looked in one of his three field guides. When I pressed him for further details, he emphasized the "buff-coloured face" and a "short tail." When I suggested that he check the shed, he mentioned that on more than one occasion a Great Horned Owl had wintered there, sitting up on an eave.

Usually, specimen records provide

strong evidence of the occurrence of a species. Although the following must be regarded as a possible record, it should be noted that the circumstances make it rather tenuous. On 20 November 1990, I was asked by the Canadian Wildlife Service in Winnipeg to identify bird remains seized from a traveller on his way home from Canada to Mexico. Included were two partial wings from a Barn Owl. These had supposedly come from a road-killed bird found somewhere in Manitoba on 8 February 1990.

According to Johnsgard, Barn Owls rarely nest north of North Dakota and southern Minnesota, the main breeding range being farther south.[9] Reported as a "causal permanent resident in the southern half" of Minnesota, they are now of rare occurrence there.[5]

Birders looking for owls hereabouts should consider inspecting old barns and sheds for possible occupants. At least in winter, Boreal Owls may be found in barns more often than Barn Owls. Note that records of Barn Owls in the Prairie Provinces have been mainly of birds observed outside of barns.[3,6,7,8,10,11,12]

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6. HARRIS, W.C. 1988. Prairie Provinces Region. *Am. Birds* 42:93.
7. MOSSOP, H. 1960. "Chickadee Notes," No. 299, *Winnipeg Free Press*, 7 Oct. 1960.
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9. JOHNSGARD, P.A. 1988. North American owls: biology and natural history. Smithsonian Inst. Press., Washington, D.C. 295 pp.
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11. SMITH, W. 1967. The Barn Owl in Alberta. *Blue Jay* 25:187.
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Spring comes to each tiny stitch in the snow quilt as a single moment. Molecules in the ice lattice soak up energy from the sun until they break the close tie they may have held all winter with their neighbours. In that supreme moment, essential to all life, ice becomes liquid. It is the fluid instant. *Braun & Cavagnara. 1971. Living Water. American West, Palo Alto, CA.*

Saw-whet Owl, Coulter Field, Weyburn, at Souris Valley Regional Care Centre grounds. *Val Doyle*

MANITOBA HYDRO ACCOMMODATES OSPREY ACTIVITY

DAVID C. VANDERBURGH, 125 Dunfield Ave., Dauphin, Manitoba R7N 0P1

Because of the Osprey's tendency to frequent power lines located near bodies of water, problems are bound to arise. In an attempt to maintain the security of lines in the Waterhen and Mossey River areas, and ensure the safety and continued presence of the birds, Manitoba Hydro Operating,

Manitoba Hydro crew remove Osprey nest from power pole. *D. Vanderburgh*

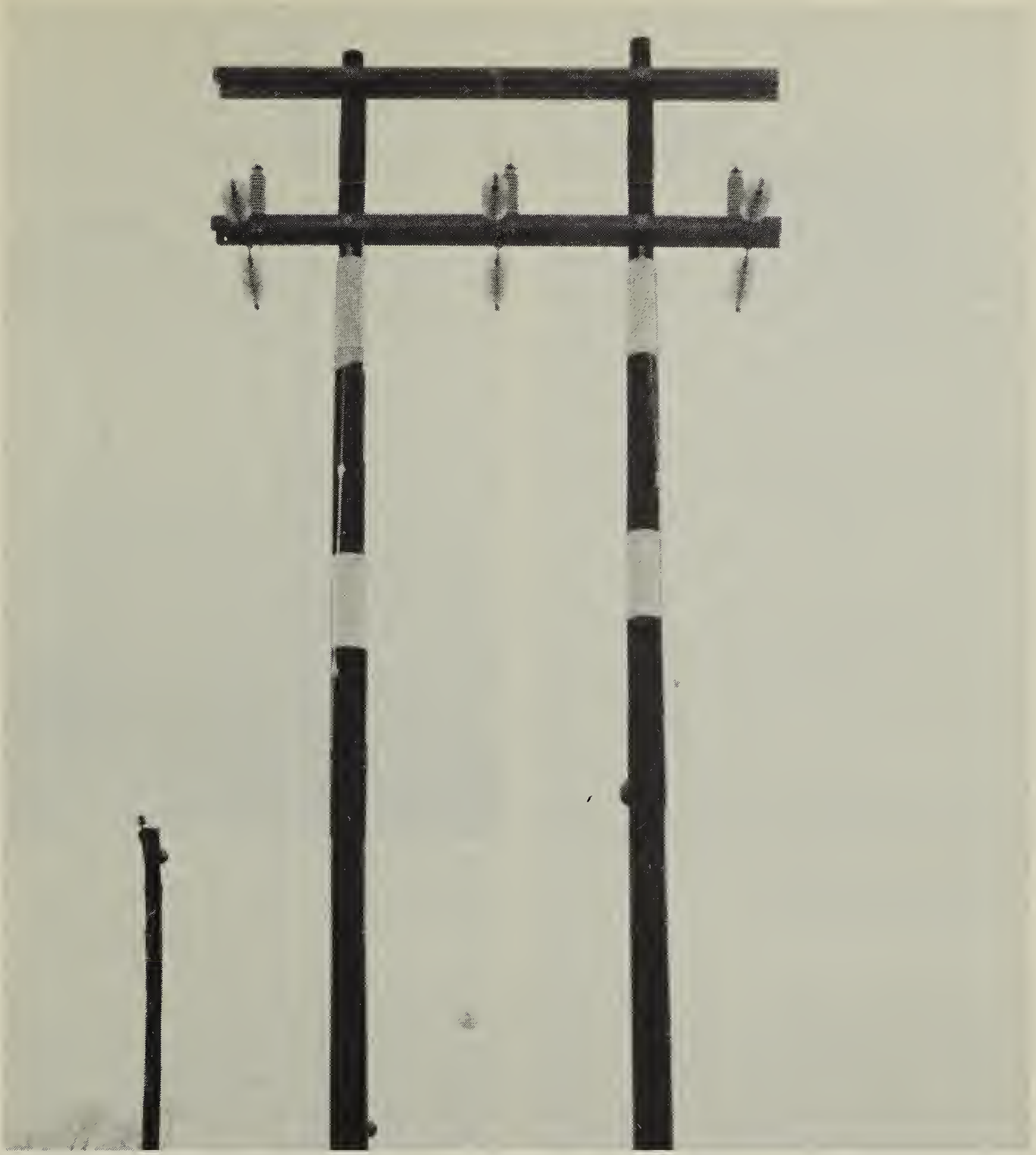
New location of Osprey nest on structure above live power lines. *D. Vanderburgh*

Engineering and Construction staff have developed some interesting approaches to this problem.

The Osprey habit of carrying long, wet sticks to the top of hydro structures has caused lines to trip out and even set fire to the tops of the structures. The potential for injury to the birds themselves is, of course, very high. Ste. Rose du Lac operating staff first addressed this problem with an innovative solution in 1988. An Osprey nest with three eggs had been built directly over an energized conductor on the 25,000-volt line crossing the Waterhen River between Waterhen Lake and Lake Manitoba at SW28-32-15W. The nest was in imminent danger of shorting out the line and probably injuring the adult birds as well. The easy solution would have been to simply dislodge the nest from the structure. However, Barry Paradis and Len Kendzierksi of the Ste. Rose operating staff decided to attempt to save the nest and its contents.

They contrived an artificial nesting platform from plywood and a cross arm, and, with both men up in the structure, were able to actually transfer the nest and eggs to this platform. They raised the platform well above the conductors and bolted it in place. The adult birds accepted their new quarters and went on to successfully rear three young that year. This success was monitored and confirmed by Cameron Peterson of the Natural Resources Department. The platform has been in place since 1988 and has been occupied every year.

In July 1992, because of power line improvements being made in the Waterhen area, Hydro decided to

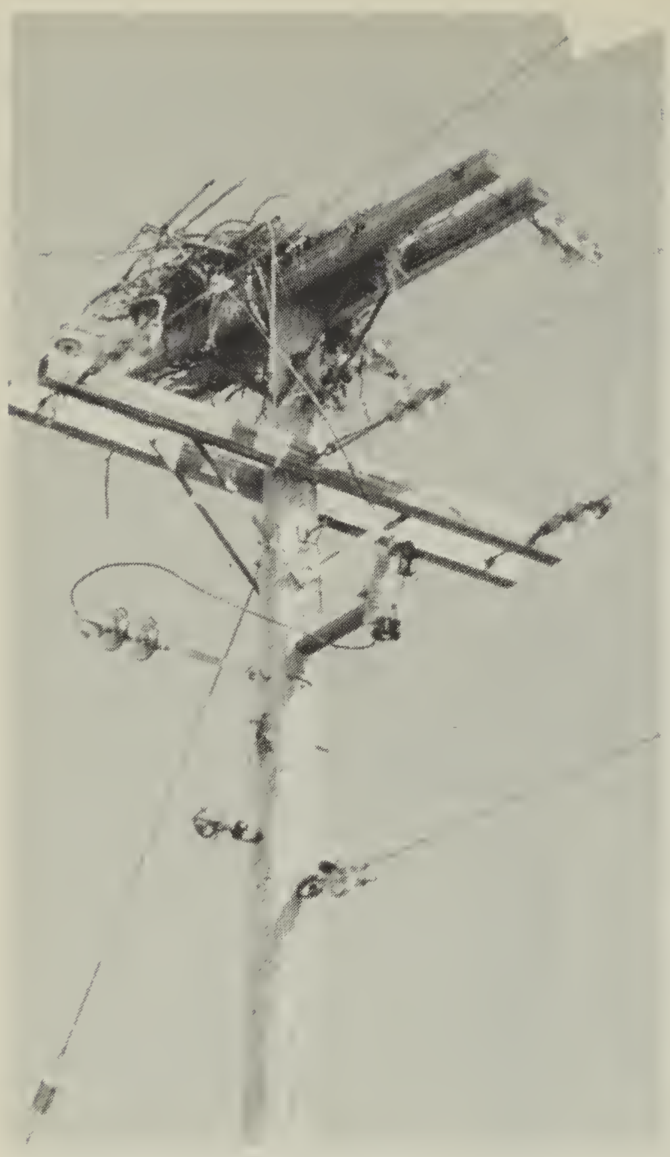


Osprey-friendly "empty" timbers provide safe nesting area well above 66,000 volt transmission lines. *D. Vanderburgh*

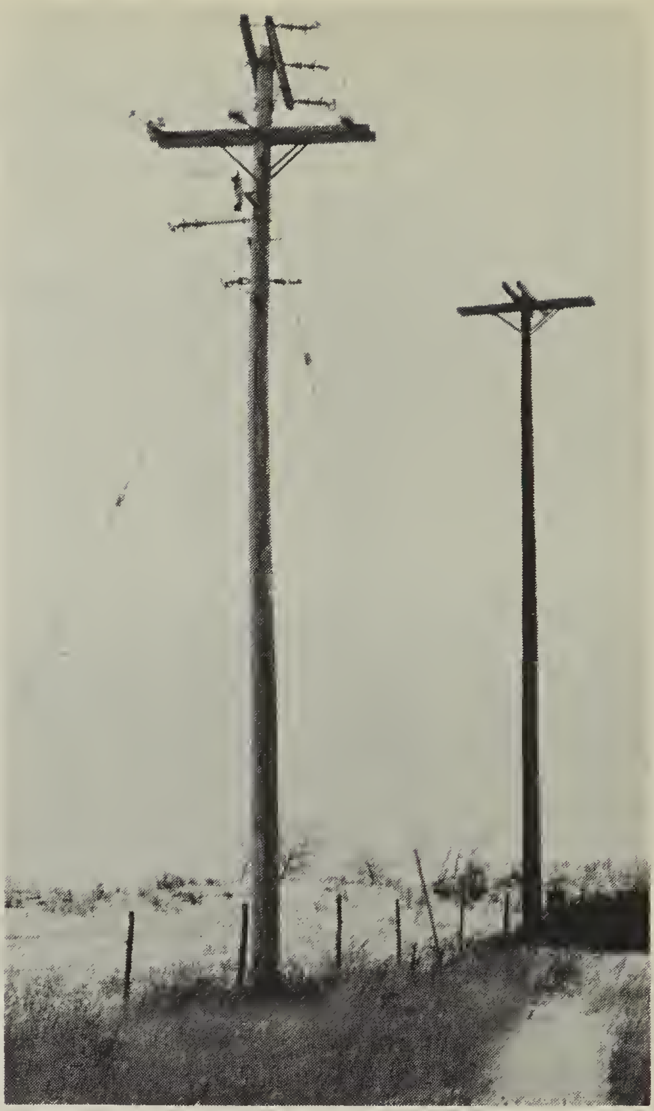
remove this river crossing circuit. I arranged for this structure plus two adjacent structures to be left in place specifically for Osprey activity. Marvin Roos, Western Region line crew foreman, and his crew carefully removed the conductors from the crossing structures without unduly disturbing the nesting birds. Marvin also photographed the nest with three eggs from their aerial bucket truck. I later observed and photographed young birds in the nest. With the removal of all overhead conductors from the crossing completed, Hydro activity has now ceased and the three structures are left "for the birds" to hopefully complete this and many future successful seasons.

I also redesigned two other Osprey-friendly crossing structures:

1) In the summer of 1991, two new 66,000-volt structures spanning the Mossey River between Lake Dauphin and Lake Winnipegosis at SE18-30-18W were completed by Marvin Roos and his line crew. The



Partially constructed nest on unsuitable corner pole.
D. Vanderburgh



Special "nesting pole" installed to attract Ospreys away from 25,000-volt corner pole.
D. Vanderburgh

poles. This provides a safe and secure area for Osprey activity.

2) The second crossing, located on the Waterhen River between Waterhen Lake and Lake Manitoba SW8-34-15W was similarly designed and built several years ago on a 25,000-volt power line.

This was in direct response to several power outages due to Osprey activity during a one-week period in the spring. At the time, an active nest was situated a few spans west of this crossing. Unfortunately, it blew down in high winds shortly after the Osprey-friendly structures were completed. The Osprey nest was not re-established but Bald Eagles now have an active nest at this same location.

Another Osprey event occurred on the west shore of Lake Manitoba SW6-32-15W in the spring of 1991. A pair attempted to build a nest on a 25,000-volt power line corner pole. Because of the unsuitability of this particular pole, Murray Makinson, Ste. Rose district operator, and I conferred and agreed that the partially constructed nest must be removed. This was done twice as the birds immediately tried to re-establish. This same scenario was repeated in the spring of 1992 as another attempt to nest was made at that time. In all three cases, no eggs were involved. Following this last attempt, I arranged for a special pole with a nesting platform to be installed beside this unsuitable corner pole, hoping the birds would attempt to nest there the following spring.

RED FOX-COMMON RAVEN INTERACTION

ROBERT W. NERO, Box 1495 St. James St., Winnipeg, Manitoba R3H 0W9

I saw Red Foxes on every outing I made last winter (1992-93) in southern Manitoba. Usually, we see them only briefly, as we drive past in search of owls of one kind or another. On 7 February 1993, however, I watched one from 2:00 to 2:30 p.m. on the Maple Creek Road, close to Brightstone Sand Hills Provincial Forest, approximately 10 km northwest of Lac du Bonnet. Herb Copland and I had just banded and released a Great Gray Owl; it flew back to its perch on a tree stub not far from the road on the edge of a broad snow-covered field. We decided to park for lunch while watching the owl and keeping an eye out for a second one that had moved away during the banding operation. It was windy and the clouds were breaking, so it was fairly bright.

The fox appeared on my side of the car and perhaps 150 m away at the far end of the field, adjacent to a distant woods. Even without binoculars I could see its general movements, so I kept eating and glancing at the fox. It moved around slowly and seemed to be sniffing the ground as if hunting for mice. Given that the snow was more than 0.6 m (2 feet) deep, with a crust that in places supported our weight (as we learned when we went after the owl), I wondered how successful the fox would be. Once, it dug energetically in the snow, working first with its forefeet, then kicking the snow backwards with its hind feet. It was so far away, however, that I could not see if it found anything. After about 10 minutes, a raven arrived; from high overhead it dived down to land about 50 m from the fox. After probing the snow with its beak, the raven flew towards the fox, landed within a few metres, then walked around the fox at close range and stood nearby. At this time, the raven's feathers were fluffed out, making it look larger that the fox, as I pointed out to Herb, who agreed. The raven flew off, landed again about 50 m away and searched about on the snow. This performance was repeated three times.

By now I had had the fox and the raven in sight for 20 minutes. All this while I alternated between looking at the fox and the Great Grey Owl which sat atop the stub, facing the sun and us, with its back to the wind. The fox was now lying down on the snow with its head up, apparently resting. When the raven flew to the fox for the fourth time, it landed about 3 m in front of it, then rapidly walked directly up to it and, to my surprise, reached out with its beak to the fox's mouth, or at least to its nose. As this was happening, the fox remained lying down, head up, seemingly completely amenable to the raven's close contact. After this astonishing event, the raven stepped back, walked off to one side, then flew away to the south and out of my sight. As far as we could see, there was only one raven involved, although there were other ravens down the road. Presumably the one we were watching flew down to join the others. Not very long after this, the fox abruptly stood up as if alarmed, looking in the direction the raven had flown. Then it turned and trotted rapidly away into the woods.

I excitedly described all this for Herb's benefit, but I was at a loss for an explanation. The least that we could judge, given the considerable distance at which the observation was made, was that there seemed to be a curiously friendly relationship between the fox and the raven, a sense of trust and familiarity that surprised us both.

In a recent book on the Common Raven, Bernd Heinrich notes that "ravens associate with any animals that kill large game" and that "carnivores are reported to be remarkably tolerant of ravens."[1] Wolves, sled dogs, even wolverines are mentioned as paying little attention to ravens attracted to their kills, though Heinrich points out that the "99.5 percent of the time that the wolf is tolerant hardly matters."[1] He goes on to suggest that a raven risks "danger by approaching meat of any kind," for carnivores, including foxes, may still be in the vicinity.[1]

But hunger, says Heinrich, is not the only reason ravens approach carnivores. Ravens that repeatedly sneaked up behind a fox and a Bald Eagle at carcasses set out for bait by photographers in Ontario, for example, were judged by those observers to be doing so out of "desire to impress one's fellow ravens with one's daring. Perhaps these are males doing their chivalrous bit for the females."[1] Heinrich examined filmstrips of these observations and found that the ravens involved were "strutting and feather posturing, doing the classical raven dominance display of courting males."[1] He concluded that the ravens approaching carnivores are demonstrating their suitability as mates by bringing potential suitors to a carcass "to show her that he (and hence she as well) can feed at it. But carcasses are rare; there is not always opportunity for such a demonstration. So the male shows his mettle on substitutes. The bird who approaches a lone wolf will surely dare to approach a carcass."[1] Our raven, which certainly had its feathers raised, may thus have been demonstrating its prowess for a distant, watching mate.

Another possible explanation for our observation may be found in David Henry's masterful book on the Red Fox.[2] Foxes regularly cache food, then return later to dig it up when needed. A long list of scavengers, including ravens, are known to take food from fox caches. Henry notes that corvids will follow a fox carrying food, sometimes for a considerable distance, watch the fox make a cache, then after the fox has moved off, attempt to uncover it. The digging action which I saw our fox do may have been an effort to uncover a cache so that it could feed. When it lay down, it may have been protecting the cache from the raven.

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RAVEN PREDATION

On the afternoon of 11 February 1993, I noticed a flock of Common Ravens fly by my seventh-floor office window. As the ravens were not doing their usual aerobatics in the thermal air currents over the office tower, I took a second look. This is when I noticed a Rock Dove being chased and harassed by the ravens. As they flew by beneath my level it was easy to watch what was happening. One raven pecked at and eventually grabbed and held the head of the pigeon. After being released the pigeon appeared injured. It descended, glided and landed on the north side of the river. All seven ravens landed there as well. As I did not see the Rock Dove fly away or the ravens leave the area, I presumed the Rock Dove was killed.

Carmen Dodge, Box 285, Prince Albert, Saskatchewan. S6V 5R5

TREE-CLIMBING BY LONG-TAILED WEASEL: AN ANTI-PREDATOR STRATEGY?

DICK DEKKER, 3819 - 112A Street, Edmonton, Alberta. T6J 1K4

On 9 September 1990, while walking westward along a road allowance near Beaverhill Lake, Alberta, I noted a Long-tailed Weasel (*Mustela frenata*) upright in the grassy ditch, about 30 m ahead. After watching it through binoculars for a few moments, I proceeded further along the road. Immediately, the weasel ran east along the ditch for about 10 m and jumped onto the trunk of a lone willow tree growing on the edge of the ditch at a location between myself and the point where the weasel had first been observed. The weasel climbed very quickly to a height of about 3 m. At my close approach, the weasel moved higher up into the top branches. Eventually, the weasel sat motionless, without making any sound, looking boldly down at me standing just 2 m below. The animal appeared to be an adult with an estimated total length of 45 cm including a tail of 15-18 cm.

I have seen weasels in willow trees on two previous occasions in the same general area. Tree climbing by Ermine (*Mustela erminea*) was reported by Soper.[7] Banfield stated that, "Ermine can climb well and often pursue squirrels and chipmunks in trees."[1] However, in my opinion, weasels may ascend trees for a totally different reason: to escape from ground predators. Evidently, the Long-tailed Weasel seen on 9 September fled to the willow tree because of my approach. Trees can provide refuge from large carnivores such as foxes or coyotes. Tree climbing to escape from canid pursuers is known of cats, both domestic and wild. American Martens (*Martes americana*) are arboreal members of the *Mustelid* family. Less well known is the fact that even mink may ascend trees when pressed hard by pursuers. On a November day in 1968, after Beaverhill Lake was frozen, I ran after an American Mink (*Mustela vison*) that fled across a snow-covered pasture. The animal eventually jumped onto the trunk of a poplar tree and climbed high into the branches.

The Prairie Long-tailed Weasel (*M. f. longicauda*) has become quite a rare animal on the central Canadian plains. In 1982 it was listed as threatened by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC).[2] It is my contention that this weasel's rarity may in part be due to direct predation by wild canids, particularly the Coyote. During the last two decades, perhaps due to reduced controls, the Coyotes have thrived in central Alberta and probably elsewhere on the Canadian plains. In addition, Red Foxes now occupy pockets of prairie habitat near farms and roads that were formerly unoccupied by wild canids.[3,4]

Foxes are known to be mortal enemies of weasels although they seldom eat the weasels. The carcasses of small *Mustelids* have often been found around fox dens, and field studies in Pennsylvania have provided conclusive proof that foxes are capable of reducing and controlling weasel populations.[5] In the Netherlands, weasels were extirpated in coastal dunes after introduced Red Foxes became numerous.[6]

Most naturalists support the notion that wild predators should be essentially unmanaged by man. However, it should be remembered that the larger predators are often intolerant of smaller predators. Since the 1970s, Long-tailed Weasels appear to have become very scarce on pastures around Beaverhill Lake. Also jack rabbits have become rare compared to earlier years. There is no doubt that Coyote populations are high. During afternoon walks in winter and early spring, it is routine to see two to eight Coyotes, and in the evening their howling chorus can be heard from several directions at once. It is my opinion that we pay a price for having so many Coyotes around: the scarcity or local extirpation of smaller predators such as weasels.

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3. DEKKER, D. 1973. Red Foxes make a come-back after 30 years. *Blue Jay* 31:43-44.
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To the labourer in the sweat of his labour, the raw stuff on his anvil is an adversary to be conquered. So was wilderness an adversary to the pioneer.

But to the labourer in repose, able for the moment to cast a philosophical eye on the world, the same raw stuff is something to be loved and cherished, because it gives definition and meaning to his life. This is a plea for the preservation of some tag-ends of wilderness, as museum pieces, for the edification of those who may one day wish to see, feel, or study the origins of their cultural inheritance. *Aldo Leopold, 1949. A Sand County Almanac. Oxford.*

AN UNUSUAL ENCOUNTER WITH THE CANADA LYNX

WILLIAM J. WALLEY, 222 Bossons Avenue, Dauphin, Manitoba. R7N 0R2

The status of the Canada Lynx (*Lynx lynx*) in Riding Mountain National Park in the 1940s was described by J. Dewey Soper as a rare straggler.[3] Today the species is a common inhabitant of the boreal forests of the park.[2] Lynx populations are cyclic, fluctuating dramatically with changes in the numbers of its principal prey, the Snowshoe Hare (*Lepus americanus*). When the hare population is up, tracks of the lynx are regularly identified near our snowshoe trails located kilometres apart among the spruce, fir and tamarack in these forests.

Despite regular sighting of tracks in years of high numbers, the lynx is rarely seen. From the winter of 1970-71 through 1991-92, I have driven, snowshoed, hiked and canoed approximately 25,000 km in the park, but I saw only one lynx. By comparison, I saw over 30 wolves ranging from 1 to 13 animals on 6 discrete occasions during this time. Over the same time span, each of four naturalists — outdoor enthusiasts who have similarly spent considerable time in the park or travelling through it — have rarely seen a lynx more than once.

Moon Lake is situated in the boreal forest in the northern sector of the park. The evening of 9 August 1991 was clear and calm as Fern Clyde and I started out on a short hike from the Moon Lake picnic area eastward. At the footbridge over Jackfish Creek near the head of the trail, three men in a canoe reported seeing a lynx near the creek a few minutes before our arrival. Subsequent to crossing the bridge, we were startled to see an adult lynx standing broadside to us on the trail about 12 m away. With 7x binoculars the cat was studied for about 20 seconds. Noted particularly were its penetrating, hypnotic stare, long legs and huge paws, short (in summer) body hair, pointed ear tufts and solid black-tipped tail, the latter being diagnostic in differentiating the lynx from the Bobcat (*Lynx rufus*).[1] One leap and it was gone.

Forty minutes later we returned on the same trail. When some 200 m east of the location of the encounter, child-like wailing was heard which we soon realized came from the lynx. In virtually the same place as first spotted, an adult appeared and padded spiritedly and haughtily toward us displaying confidence and curiosity rather than aggression. Nevertheless, I picked up a dead, club-like branch and instructed my friend to get behind me. When 5 or 6 m away, the cat turned 180 degrees without breaking stride, seemingly satisfied that we were of no significance to it. As it briskly and light-footedly padded away, a second adult leaped out of the tall grass near the footbridge and started toward us in the same bold, nonaggressive manner. For two or three minutes the lynx activity on the trail blocked our progress, then one at a time the cats crossed the footbridge and seemed to be investigating the vegetation well away from one another. We were then joined by two other people and watched as the cats, one by one, dawdled back across the bridge, sat down on their haunches 2 m apart and began caterwauling loudly.

For 15 minutes we observed the felines caterwauling at each other at close range. When actually wailing the head was turned almost 90 degrees sideways apparently to avoid eye to eye contact, possibly to avert active aggression. Forty-five minutes later and well after sundown, the caterwauling continued from the same area. The cats were not located the next morning when we returned.

In Riding Mountain when, occasionally, large mammals become somewhat habituated to human activity, notably around campsites, and are described as being tame, their presence becomes general knowledge to the park warden and interpretive staff. This would be particularly true of unusual "visitors" such as the Canada Lynx. Inquiries made of the Chief Naturalist in October 1991 and of the Chief Warden of the park in August 1992 provided no information about these lynx at Moon Lake.

What was the significance of the interaction between the two cats and how can their bold behaviour toward humans be explained? Except for brief pairing up during the breeding season in March and early April, adult lynx are usually solitary.[4] Particular note was taken to determine the sex of these animals. The apparent absence of external reproductive anatomy suggested both cats were female. Lynx are territorial and avoid each other by urination, defecation, and anal scent placed on territorial boundaries. While home ranges overlap, sometimes those of females are fairly distinct.[4] The most plausible interpretation of the encounter would seem to be a territorial conflict between two females, although no signs of aggression were ever observed.

How can the cats' behaviour toward humans be explained? Evidently, the degree of habituation to humans through earlier encounters was minimal if there was any at all. Did stress generated over the territorial dispute result in displacement behaviour involving the loss of appropriate fear responses to humans? Wrigley has described the lynx as a timid creature, as the rareness of park sightings would indicate.[4]. However, some lynx demonstrate a curious acceptance of humans. While on horseback patrol in the Smoky River region of Jasper National Park, Chief Warden Ray Frey came across a lynx on its haunches at the edge of the trail he was travelling (pers. comm.). The lynx looked up at Frey as he rode by. The cat was about a metre or so away from the horse and remained there long after the pack horses behind Frey had passed.

On 15 August 1991, as he was driving through the park, Paul Clark came across a lynx sitting on the top of the ditch back slope along Highway 10 approximately 7 km north of the Moon Lake encounter site (pers. comm.). He was able to approach it on foot to within 5 m before it left with its two young when his camera clicked.

This behaviour of the Canada Lynx is in contrast to an experience I had as a youth while exploring the woods with a small group of older boys. We were climbing an aspen-clad ravine in the Birdtail Valley of Birtle, Manitoba, when one of my chums warned that a lynx might attack at any time. Unaware that the area was not lynx country, I expected the cat to spring at us at any moment.

Acknowledgements I thank Chief Warden Ray Frey, Canadian Parks Service, and Paul Clark for their interesting contributions to this note.

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3. SOPER, J.D. 1961. The mammals of Manitoba. *Can. Field-Nat.* 75:171-219.
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NATURE LIBRARY

CONSERVATION BIOLOGY

PEGGY L. FIEDLER and SUBODH K. JAIN. (Eds.). 1992. Chapman and Hall Inc., New York. 507 pp., paper.

This book is the latest welcome addition to the growing collection of technical works concerned with the science of preserving biodiversity. Unfortunately, given the present global trends in species extinctions, it is unlikely to be the last. Books like this are important because they give current beleagured wildlife managers some guidance in making decisions that have often in the past been made with haste and insufficient information. The book will also be extremely useful to university students who are still to this day not receiving the academic training necessary to intelligently respond to the extinction crisis looming in the near future.

The book has eighteen chapters written by various experts in the field. Five of the chapters are nontechnical in that they are essays concerned more with the philosophy of nature conservation rather than with its nuts and bolts. Of the thirteen remaining chapters, five deal with plants, one with reptiles, one with fish, one with mammals, and one with invertebrates (a refreshing addition). The other four are concerned with "spaces" issues and genetics rather than with "species" issues.

As a source book for someone entering the field, it has plenty of references covering the entire history of species preservation. Some of the chapters are a little heavy going mathematically but that is to be expected in a book of this sort. The review of forest fragmentation and its effects on biological diversity by Larry Harris and G. Silva-Lopez is very good and very current. As they paraphrase in their introduction, habitat fragmentation is "the most serious threat to biological diversity, and the primary cause of the present extinction crisis." It makes for very sobering reading, especially when taken in the context of southern Saskatchewan. Furthermore, as pointed out by John Harper in his thought-provoking foreword, most of the efforts devoted to nature conservation to date have been concerned with plants and animals where they currently exist. If the predictions of global warming bear fruit, most of our nature reserves will not be fulfilling the purpose that they were set out to do. Simply put, they will be in the "wrong" place. The science of "restoration ecology" will then become the only way of conserving valuable genetic resources. It will mean moving genetic resources from a place in which they are no longer adapted to one in which they will be.

On the whole, the book is very well written and edited. I could detect no errors. I recommend it to all who are seriously concerned with the impending extinction crisis.

Reviewed by *Paul C. James*, Saskatchewan Museum of Natural History, 2340 Albert Street, Regina, Saskatchewan. S4P 3V7

KNEE HIGH NATURE: SPRING IN ALBERTA

DIANNE HAYLEY and PAT WISHART. Illustrated by JO-EL BERG. 1991. Knee High Nature, Sherwood Park, Alberta. 170 pp., coil bound, soft cover. $14.95

[Nominated for Alberta Educational Book of the Year in 1991]

When I received this book, I was impressed at its usefulness as a resource for natural history studies with children. As a teacher, I readily saw applications in and out of the classroom. However, the book's usefulness extends beyond the classroom as it is also intended for parents and leaders of young children.

This is the fourth in a series of seasonal resource books. *Winter in Alberta*, *Fall in Alberta* and *Summer in Alberta* are the other books in the series. What is the purpose of the book? The authors write, "The main purpose of this book is to increase awareness and appreciation of the natural world and to encourage adults to share their knowledge with children and children to share their sense of wonder with adults."

The text includes sections on Pond Life including plants and insects; Toads, Frogs and Salamanders; Ladybird Beetles or Ladybugs; Butterflies and Moths; Green and Growing (a section on seeds); Hares and Rabbits and Spring Birds. No section is exhaustive, but each one provides a general, interesting introduction to study in these areas.

Although this book is written for Alberta, it is applicable in Saskatchewan. The species covered can be found in ecosystems in the province, except for some animals described such as the Spotted Frog, Western Toad, Long-toed Salamander and Pika. These descriptions make up only a small portion of the text.

The text is easy to read and is not overly technical. Although the book was written as a resource book for adults, the book could be read easily by most grade six students. The natural history descriptions of the various plants and animals are basic and appropriate for a wide range of children. Activities, songs and poems could be used for primary students, yet much of the information on pond life, amphibians and insects is detailed enough to be appropriate for grade six or seven students.

The line drawings provide good detail showing physical descriptions of various species, habitats, life cycles and food pyramids. Also a page of colour photographs of butterflies and moths is included — a real plus for species identification.

A feature of this book is the variety of activities provided for each topic of study. Each section provides some basic identification theory, some natural history notes, drawings, as well as other activities such as art projects, poems, songs and games. For example, if a unit of study on butterflies and moths were chosen, the book provides identifying characteristics of moths and butterflies, information about the natural history of several common species, information on caterpillar identification, a good selection of children's poems and songs, a creation myth about butterflies and various art activities and games all focussing on butterflies and moths. All the other units of study follow a similar format to incorporate a variety of activities.

Reviewed by *John Pollack*, Box 353, Whitewood, Saskatchewan. S0G 5C0

THE WHEATGRASS MECHANISM: SCIENCE AND IMAGINATION IN THE CANADIAN LANDSCAPE

DON GAYTON. 1990. Fifth House Publishers, Saskatoon. 156 pp. $14.95

The little book about the role of grasses and grazers in prairie ecosystems is, like Stan Rowe's *Home Place*, a collection of essays, some of which have been published in magazines familiar to readers in Western Canada. *The Wheatgrass Mechanism* is worthwhile reading for any naturalist. It is also well suited to casual readers seeking some understanding of biological systems, natural or cultivated, which owe their survival and sustenance to the sun, soil and waters of the Northern Great Plains.

This book would be particularly useful as supplementary reading for light class study in our school system in the Grades VII to IX range. Schools with these grades should seriously consider purchasing a few copies while it is in print.

Don Gayton's poetic style is pleasant and will fascinate readers. There are a few examples of fractured structures which are probably regarded as a writer's license — such as sentences without verbs. Also, some of Gayton's chemical detail is not precise enough, e. g. the use of the term "dinitrogen gas," and the noting of salinity without mentioning the sodium level. There are a few problems with biological terms and nomenclature too, e.g. on the first line of page 98 buckbrush is more likely snowberry, *Symphoricarpa* sp. rather than *Cratageus* (hawthorn). To most readers, and particularly those who will read this book, such inexact terminology is a minor problem. There is a solid scientific base for most of the statements and a sweep of reality about the ideas that makes *The Wheatgrass Mechanism* a book that will enlarge the view of many people.

As I noted at the outset, some of the chapters have been published as magazine articles which some of our readers will have already read. Read chapters like "The Grass and the Buffalo," "Analogues and Desire," and "Roy LaMotte's Cows" first. Note statements like, "If these grass species — the fescues, stipas and wheatgrasses — evolved hand in hand with the shaggy buffalo, why are they so fragile? Why do they decline so quickly under modern cattle grazing...." and of Roy LaMotte: "He couldn't be called a gentle man, but he was always considerate of his cattle and horses, in contrast to some of the other district cattlemen. And in his own unschooled way, he was painfully aware of the contradictions of a traditional cattle drive through a modern hippie refuge." Such passages draw the reader to read the book from cover to cover. Try it and expand your view of the grasslands of the Northern Great Plains and those of inter-mountain British Columbia.

Reviewed by *Jim Jowsey*, Box 400, Saltcoats, Saskatchewan. S0A 3R0

A meadow is the story of ecology in a richly bound edition. *Braun & Cavagnara. 1971. Living Water. American West, Palo Alto, CA.*

LETTERS

HOUSE FINCHES IN TISDALE IN 1992

In the June 1993 *Blue Jay* (51:113-121) there is a write-up on the House Finch in Manitoba in 1991. I sighted a House Finch in the spring of 1992 and again in 1993, but unfortunately did not get pictures of them at my feeder. My feeder is at my kitchen window and the birds were within six or seven feet of me. I checked very carefully with Peterson's bird guide for special identifying marks. At the time, I did not realize that these House Finches were not regular migrants. Others might be interested to know that the House Finch has been in the Tisdale, Saskatchewan, area.

- *Harley S. Ranson*, Box 23, Tisdale, Saskatchewan. S0E 1T0

LITTLE BLUE HERON AT LUMSDEN

Saturday, 8 May 1993, was a dull, overcast day. Thinking that it was a good day to find early warblers along the river bank, I took a walk late in the afternoon. I did not find warblers, but as I was about to return home, across the river (approximately 25 yards) in a dead tree hanging out over the river, a large bird was standing. I was not familiar with the bird, so I continued to watch it. It was very cooperative and I had an excellent view of it.

I returned home and as soon as I saw Godfrey's picture in the *Birds of Canada* I knew what I had seen. Al came back to the spot and again we had a good view of it, fishing from some flotsam in the river. It was dark, slaty blue with long legs, long bill (partly white on top), almost purple over the head and neck.

Keith Barr came out on Monday morning and took some pictures and a number of others came during the day to see it. Although we looked for it, "Little Blue" was not seen again after Monday.

Knowing that it is an eastern seaboard heron, we wonder how it happened to be in our area.

- *Betty Binnie*, Box 382, Lumsden, Saskatchewan. S0G 3C0

A THIRD WINTER BLACK GUILLEMOT FROM CHURCHILL, MANITOBA

Nero recently reported a second winter occurrence of Black Guillemot (*Cepphus grylle*) from Churchill, Manitoba.[1] This note reports a previously unpublished winter record which, chronologically, represents the second of three such sightings.

During the winter of 1984, local resident Joe Kowal found a strange bird sitting on a snow bank near the townsite grain elevator, being attacked by Common Ravens. While the exact date is unknown, Mr. Kowal indicated that it was during March 1984. The bird - a Black Guillemot - subsequently died, but was kept frozen until I prepared it as a study skin on 1 August 1984. Presently housed in the collection of the Churchill Northern Studies Centre, the specimen weighed only 246 g and had no body fat, suggesting that it was in dire straits when found.

While the appearance of Black Guillemots on shore during winter at Churchill seems to be a rare event, the species may be regular in nearby leads on Hudson Bay. In 1984 a local hunter and naturalist, Paul Ratson (pers. comm.), told me that he had seen guillemots frequently during the winter while hunting seals at open water areas off Churchill. Researchers or government agencies that have an opportunity to fly over open leads off Churchill during the winter should be encouraged to look for this species, or any other birds, which might be present.

Joe Kowal should be commended for his interest in trying to help the grounded guillemot and his foresight in preserving the specimen. I would like to thank Kevin Burke of the Churchill Northern Studies Centre who kindly relayed the data from the specimen label to me.

1. Nero, R. W. 1992. Second winter record of Black Guillemot at Churchill, Manitoba. *Blue Jay* 50:113-114.

- *Doug McRae*, Box 130, St. Williams, Ontario. N0E 1P0

HOME GROWN DUCKS IN REGINA

One day in the spring of 1993, my wife and I noticed a pair of adult mallard ducks in the back yard of our home in south Regina. We were glad to see them again since they had nested in our yard on two previous occasions. They returned on several successive days and finally selected a nesting spot under a bush beside our small pond. After laying 12 eggs, the hen began the incubation process. This immediately dominated our backyard activities (don't make any unnecessary noise, don't walk too near to the nest, cut the lawn only when she is away on a feeding expedition). As soon as incubation began the drake was not seen again.

During the incubation we gradually established the hen's confidence. On one occasion we together routed a marauding cat which endangered the nest.

Authorities had informed us that the incubation period for duck eggs was 26-28 days but "our" brood hatched on the 35th day, after we had almost given up hope. The ducklings took a couple of exploratory dips in our pond, and then seemed ready to leave the nest behind. We decided the ducklings could not survive the trip of nearly two km to the lake without some assistance. We surrounded the nesting site with netting supported by stakes.

We managed to catch all the ducklings and put them in a pail where they peeped loudly in protest. Our plan to catch the mother was unsuccessful, despite the assistance of a helpful neighbour.

Finally, I started to walk slowly in the general direction of the lake, with a pail of peeping ducklings in one hand and a fisherman's dip net in the other. The mother duck began to follow along, expressing her anxiety with loud quacking. At the end of each block, I would set the pail on the ground and move away from it. The mother would waddle up to the pail to be sure the little ones were all right. We would then set off again, repeating the process at the end of each block. As long as she could see us and hear the peeping, the mother would walk behind or fly overhead. We must have made a strange procession along the street, followed at a discreet distance by my wife and our helpful neighbour in the car.

Finally we reached the shore of the lake and released the ducklings to be reunited with their mother. We are now hoping she will escape the predators and hunters so she can return to our yard next year.

- *Allan McLeod*, 37 Anderson Avenue, Regina, Saskatchewan. S4S 4R3

THE TALENTS OF DONALD HOOPER

C. STUART HOUSTON, 863 University Drive, Saskatoon, Saskatchewan.
S7N 0J8

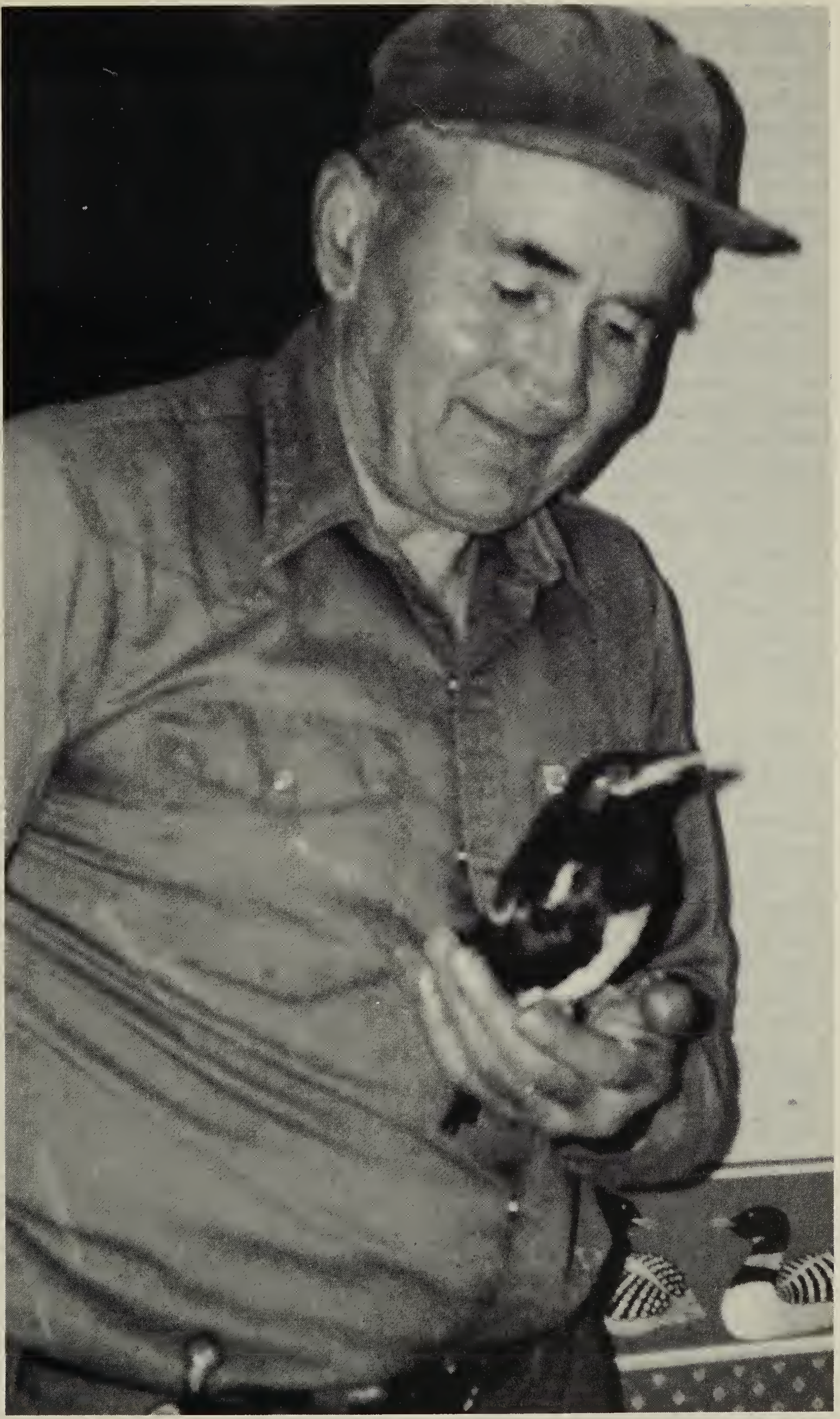
On 28 April 1931, Donald Hooper and his twin brother Ron were born at the Red Cross Outpost Hospital, at what was then called Carragana (until the railroad came through in 1929), six miles north and two miles east of the present hamlet of Somme. This hospital, which operated from 1921 through 1948, served the Porcupine Soldier Settlement, Canada's largest soldier settlement, 200,000 acres withdrawn from the Porcupine Forest Reserve for returning soldiers after World War I. Donald died on 19 June 1993 in the successor to that hospital, the Porcupine-Carragana Union Hospital. His body is buried in the cemetery of St. Andrew's Anglican Church, immediately adjacent to the site of the former Red Cross Outpost Hospital.

At Donald Hooper's funeral, 22 June 1993, in the Somme Legion Hall, I gave the following eulogy, one of four presented on that occasion:

Donald Hooper was a man with unusual talents.

What do we mean by talent? About two thousand years ago in biblical times, a talent was a measure of weight - a weight of silver worth about 2,000 dollars or a weight of gold worth 25,000 dollars in 1950. Perhaps worth ten times that much in 1993 dollars. A huge amount of money for the landowner to leave his servants to invest! From the "parable of the talents" in Matthew 25, beginning at verse 14, the word "talent" has come to mean a person with great ability and special aptitude. To quote from my *Waverly Pictorial Dictionary*, a talented person has a strength of intellect that can be trained to a pitch of excellence. Donald Hooper had talent. He was worth his weight in gold.

In 1 Corinthians 12, St. Paul lists some of the diverse talents that different people may be given. The first three listed are wisdom, knowledge and faith. Donald Hooper had all three. His faith and his intimate knowledge of the Bible sustained him through life. Although he had only a grade 8 school education, he became an educated man and a scholar in the true sense of the word, adding to his knowledge and acquiring wisdom. Prefacing a second statement about gifts in Romans 12, verse 2, St. Paul says "Be ye transformed by the renewing of your mind." How appropriate! Donald continually renewed his mind, through observation and study. He had a sharp eye - not only did he see birds and plants and insects that others would have missed, his sharp eye fixed on Margaret Ashdown, his wonderful wife and lifelong partner,



Don Hooper with a young magpie. *Margaret Hooper* who gave him unstinting support. He collaborated with his twin brother, Ronald, who shared his interest and worked with him regarding all phases of natural history. And his life was solidly based on his farm, producing food for the world. His feet were firmly rooted in the soil.

Donald was a man of integrity, strong, indefatigable, reflecting Psalm 25, verse 21: "Let integrity and uprightness preserve me." He met his one illness, a fatal brain tumour, with remarkable strength. In spite of his deteriorating physical state, with paralysis, in spite of radiation therapy which makes lesser men waste away, his mind remained remarkably clear almost until the end. Fellow birdwatcher Frank Roy marvelled at the good visit they had together on 20 May and I visited with Donald by telephone shortly thereafter.

Mary and I first visited the Hooper farm at Somme on 12 June 1953, to see the twin brothers' collection of mounted birds in a museum in a granary. Donald that day was working on a neighbouring farm, but Ronald and Edna showed us the impressive museum. But Don and Ron were in real trouble. They had stayed up late the night before, collecting moths in front of tractor lights. A wonderful collection was the happy result. Less happy was the other outcome: when their father went to start the tractor in the early morning to do his field work, its battery was dead. He had to pull the little tractor with horses to get it started. His enthusiasm for his sons' studies was temporarily dampened!

Donald Hooper was a man seldom seen since the 18th century, when gifted individuals might undertake to study all of God's creation. Rarely in our day do we see a well-rounded naturalist, knowledgeable about birds, plants, reptiles, insects. Let me mention just a few of his contributions to natural history. He contributed greatly to Ron's book, *Butterflies of Saskatchewan*, in 1973. He collected the third specimen of a beetle, known only from Medicine Hat and Edmonton in Alberta. He studied technical manuals of botany for adjacent areas, and searched specifically for species not yet found in Saskatchewan, adding thirteen plant species to the provincial list. His unfinished manuscript on the plant species of his area will be completed by his close field associate, Professor Vern Harms, of the Fraser Herbarium at the University. Donald found the first-ever nest of the Nashville Warbler in our province and followed enthusiastically the first nesting in over a century of Trumpeter Swans in Saskatchewan parkland. His articles in the *Blue Jay* were about reptiles and amphibians, as well as birds, mammals and plants. He and Ron wrote "A Preliminary List of the Birds of the Somme District, Saskatchewan" in 1954 and he finished his wonderful regional book, *Birds of East-Central Saskatchewan, Kelvington to Kelsey Trail*, in 1992. Not a bad record for a man with a country-school grade-8 education! I had the pleasure of delivering the first copies of his book to him in Royal University Hospital.

Donald was not only interested in science, he was deeply concerned with conservation: Wildcat Hill Provincial Wilderness Park, expanded on 24 August 1992; Rendek Elm Forest; Brockelbank Hill, south of Armit, designated as the Brockelbank Hill Protected Area on 24 August 1992; protection of the rare Rams'-head Lady Slipper in Hudson Bay Regional Park. He was the Saskatchewan Natural History Society representative on the Saskatchewan

Forestry Advisory Committee. He presented a brief concerning the rare and delicate plant species that need "cool moist woods to survive" and hence may be lost forever when forests are clear-cut. He founded the Hudson Bay Natural History Society. He wrote a nature column, illustrated with his own photographs, in the *Hudson Bay Post-Review*.

Donald Hooper was a talented man who, unlike many others, used his talents wisely all his life, for the benefit of his community and his province. He shared his talents. He maintained his boy-like enthusiasm and lived life to the full. He received a number of special honours. At the 1991 and 1992 annual meetings of the Saskatchewan Natural History Society, Donald received the Larry Morgotch Award for the best slide presentation, and in 1992 both he and his brother Ronald were named Fellows of the Society. He received the Canada 125 Commemorative Medal in 1993. At the Endangered Species Conference in February 1991, Donald received the Saskatchewan Award for his life-long work.

His accomplishments will live after him. We rejoice for the full life he lived.

On April nights when it has become warm enough to sit outdoors, we love to listen to the proceedings of the convention in the marsh. There are long periods of silence when one hears only the winnowing of snipe, the hoot of a distant owl, or the nasal clucking of some amorous coot. Then, of a sudden, a strident honk resounds, and in an instant pandemonium echoes. There is a beating of pinions on water, a rushing of dark prows propelled by churning paddles and a general shouting by the onlookers of a vehement controversy. Finally some deep honker has his last word, and the noise subsides to that half-audible small-talk that seldom ceases among geese. Once again, I wish I were a muskrat. *Aldo Leopold. 1949. A Sand County almanac. Oxford.* (Krutch and Eriksson. 1962. A treasury of birdlore. Eriksson, NY. P. 12)

EDITORIAL

"A rose by any other name would smell as sweet." As of June 1993, the Saskatchewan Natural History Society (SNHS) will be referred to as "Nature Saskatchewan," a registered trademark name of the SNHS. Nothing else about the SNHS will change, just the public name of the organization. *Blue Jay* and *Blue Jay News* remain as the names of the organization's journal and newsletter, respectively.

The name change comes in response to the results of a professional public opinion survey. The survey showed that the majority of non-members interviewed thought that the SNHS was a historical society, or they could not accurately describe the role of the SNHS by name alone. The survey also indicated many non-members would be willing to join a conservation organization. (See the December 1992 *Blue Jay* (50:235-237) for more about the results of the survey.) The decision to change the name was made by the SNHS Board, following a notice of motion at the SNHS's 1992 Annual General Meeting to look into the feasibility of changing the corporation's name to something more descriptive of the corporation's role. So, hello Nature Saskatchewan, and hello new members.

But it is not goodbye to the old name. "Saskatchewan Natural History Society" remains as the legal name of the organization, but "Nature Saskatchewan" will be used publicly. Frank Switzer, past president of SNHS, likens this arrangement to the Saskatchewan Power Corporation calling itself "SaskPower" although "Saskatchewan Power Corporation" remains as the legal name. Saskatchewan Natural History Society and Nature Saskatchewan are synonymous, but the trademark name is shorter and easier to wrap your tongue around.

Using the new name will come hard to some long-standing members, who are devoted to the organization and see the name as perfectly descriptive. "Why fix what ain't broken?" Natural history means "a systematic account of natural phenomena," but to many people — particularly non-members — "ecology" or "biology" or "nature study" are the terms used to describe this pursuit. Some people seem to think any group with "history" in its title is interested in the War of 1812 or old buildings.

I hope Nature Saskatchewan's long-time members will accept the organization's name change and welcome new members to join them in the study of non-manmade world.

I join many others in mourning the passing of Donald Hooper of Somme. Though I never met him in person, I received numerous articles from him for *Blue Jay*. In fact, I had trouble believing Mr. Hooper to be as ill as people said because *Blue Jay* material from him came to me in an almost steady stream up to June of this year. The province has lost one of its finest naturalists.

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